The Builder.

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SATURDAY, AUGUST 24, 1850.

THE British Archæological Association have been holding their annual congress in Manchester and Lancaster. Some excellent papers have been read, and several instructive, as well as pleasant excursions made. We shall get what we can from them for the advantage of our readers. The principal works now in progress in Manchester are warehouses, of which, indeed, it will soon mainly consist; and we shall next week give an elevation and plan of one of these now going up at the corner of Parker-street and Portland-street, under the able superintendance of Mr. J. E. Gregan (the architect of Sir Benjamin Heywood's bank, engraved in our journal some time since), and to whom, by the way, the Association are much indebted for friendly exertions.

The modern warehouses of Manchester, imposing by their extent and height, have also architectural character, and render the streets peculiar in aspect. Several are now going up: we may mention, in addition to the last-named, one at the corner of Dickenson-street and Cooper-street, by Messrs. Travis and Magnall, displaying skill and fancy; and another large pile in Peter-street, by Mr. Donnison, scarcely so good. The additions to the Infirmary, under the direction of Mr. Lane, are going on. An Industrial Establishment for the poor of the parish is about to be erected, at a cost of from two to three thousand pounds, under the direction of Mr. Dickson. There is also to be a new Fever Hospital. The mayor and others show much anxiety that the money which has been subscribed for the erection of a monument to Sir Robert Peel (4,700*l.*) should be satisfactorily expended, but they have not yet decided on the course to be pursued to obtain a design. The site proposed for it is in the piece of *water* opposite the Infirmary: we may have something more to say upon it. The interior of the Exchange, which has been judiciously decorated with colour, presents several points for admiration, but is not without blemishes, amongst the most prominent of which is the position of the beams of the ceiling of the side divisions, which are unfortunately placed without reference to the windows in the side walls. Near the Exchange is a pile of shops and offices erected lately under the direction of Mr. Walters, who has already done something towards the adornment of Manchester. The cornice is not without elegance, but the broken pediment to admit the window of first floor to appear, is scarcely defensible.

Amongst the works about to be commenced is a direction-post at the corner of All Saints' Churchyard, from the design of Mr. Truefitt. It is also to answer the purpose of a lamp, and is so ingenious and novel that we have given a representation of it.* This is now being executed in wrought iron. The direction slabs are of thick white earthenware glazed, and having red letters, and the base is carved out of a block of granite. The pedestal is 4 feet 6 inches in height, and the ironwork 13 feet 6 inches—thus making the total height from pavement 18 feet.

The Roman Catholic Church of St. John the Evangelist, at Salford, is a building of great merit, from the drawings of Mr. Hadfield. The west front is a reproduction of a well-known example. It is a cross church of great size, with tower and spire at the intersection. The chancel is prepared for a groined vault, and has a large sculptured figure over each of the main columns. The interior wants decoration to relieve its bareness.

A temporary museum has been opened by the Association at the Mechanic's Institution, and contains many objects of interest. We trust it will not be dispersed without letting the public have the advantage of it for a day or two.

At the opening meeting in the Town Hall, on the 19th inst., James Heywood, Esq., M.P., as president, delivered an opening address, in the course of which he said—relative to the fact that, until of late years, the science of archæology had not been attended to in England in the manner it had been on the continent—that he considered it a very great advantage which the Germans, and particularly the Prussians, had had in having a minister at the court of Rome. M. Niebuhr specially mentioned, in the dedication of his History of Rome, the advantage which he gained from his long residence there, and the archæological researches there carried on. Niebuhr certainly was at the head of his profession; and his history was, in point of fact, a re-writing of the history of that interesting country. His secretary and pupil was the Chevalier Bunsen, now the Prussian minister at St. James's. The chevalier formerly gave great attention to Roman antiquities; and latterly, in a period of leisure, he had given his time to the subject of the antiquities of Egypt. After much study, he had brought out a work which traced more clearly than any other in existence the immense antiquity of Egypt. He carried back his researches to a period 3,000 or 4,000 years before Christ, and he thought it proved that the Egyptians had had a regular line of kings for at least 3,000 years of that period. This was such an entire change from our pre-conceived notions, and we must give a so much longer period to the duration of the human race on the earth than we had been in the habit of doing, that he (the president) thought we should have to have our chronology re-written. No discoveries in archæology had, in fact, been more surprising than those of Bunsen and Wilkinson, with regard to the immense antiquity of Egypt. Bunsen's work had been published several years, and he (the president) had not seen any other work in opposition to it. We owed a great deal to our English writers for bringing forward in England, in a popular shape, what had been done in Germany: Arnold had made Niebuhr popular with us in a way he never could have been but for his (Arnold's) translation, so that we repaid the debt we owed to Germany, by bringing forward the researches of her writers in a more popular and tangible shape. They owed a great deal to the arts of wood engraving and lithography in making archæology popular, by supplying such beautiful illustrations with which archæologists might illustrate their papers. At the close, Mr. Heywood expressed his desire that the Association and the Archæological Institute should be united, as together they would do more good than singly.

Mr. A. Ashpitel then gave an account of the cathedral, which we give in full elsewhere. Mr. Godwin drew attention to the dangerous state of the cathedral tower, and expressed a hope that the authorities would give early attention to the subject, and direct their architect to take steps for effecting the necessary repairs.

At the evening meeting Mr. Pettigrew, F.R.S. read a very able paper on the study of archæology, and the particular objects of the Association. The pursuits of the true antiquary, he said, demanded a knowledge and exercise of various attainments. To render his labours effective, he must possess no little acquaintance with heraldry, with genealogy, with various languages, in which inscriptions were to be found, either on monuments or in manuscripts, with history in general, and particular manners and customs, and a variety of other attainments, scarcely to be expected to be found combined in one individual. Hence the benefit of such associations as the present, where persons of different knowledge and attainments combined together, to elucidate the events and memorials of past ages. The present time was peculiarly favourable for antiquarian research; for, from the spread of education, there had been created and fostered a desire to protect and preserve that which was likely to throw light upon any subject of investigation, rather than to wilfully destroy them. The great number of societies and clubs existing in different parts of the empire satisfactorily proved the desire there was for antiquarian research. It was the province of the antiquary to collect, assort, and connect together the various particulars he might find scattered either in the pages of history or in his search for antiquities, so as to elucidate each other, and bring them into one general system.

Mr. Planché, F.S.A., followed with a paper on the Stanley Crest, wherein he contrived, as he has often done before, to invest heraldic matter with great general interest.

A comprehensive paper was read by Mr. J. C. Bruce, "On the Structure of the Norman Castle," to which we hope to revert. On Tuesday the Association made an excursion to Whalley Abbey, afterwards to Ribchester, and thence to Lancaster, to hold an evening meeting, whereat papers were read on the Badges of York and Lancaster, by Mr. Planché; on the History of Witchcraft, by Mr. Thomas Wright; and on the Barbican in connection with our Castles. More, however, anon. We give, as a further memorial of the visit, a view of Hornby Castle, Lancashire, the seat of Pudsey Dawson, Esq., and scene of one of the excursions, which has recently been restored by Messrs. Paley and Sharpe.* Of this building we shall be able to speak next week.

* See p. 403.

ON THE ARCHITECTURE AND HISTORY OF MANCHESTER CATHEDRAL.†

IN consequence of the destruction of the documents referring to the cathedral at the time of the civil wars, any investigation must be undertaken by wading through a great mass of tradition, and *disjecta membra* collected from one source or another. One of the advantages of archæological study was that the more we investigated, the more beauties and excellencies we found. The dust of an old charter frequently turned into the gold of valuable knowledge; and it was the speaker's opinion that there was yet before us, in every one of the edifices of our mediæval architects, an immense amount of really valuable and interesting information. It was too often the case that the past was forgotten in

* See p. 402.

† By Mr. Arthur Ashpitel, at Archæological Congress.

the excitement of the present; and he might therefore be excused if he recalled to their minds the fact that Manchester was by no means a new or upstart town; on the contrary, that it was one of the oldest towns in the British empire. It was a town in the time of the British: it was a Roman castra, which gave it its name of "chester," and was a title of proud distinction, and from that time to the present it had gone on steadily increasing in importance until it had become the wonder we now saw it. He would not dwell upon the period before the Norman conquest, because very much of the matter referring thereto must be merely conjectural; he would rather, at once, take up the first record we find on ecclesiastical matters in Manchester. This was done in Doomsday Book, which mentioned two churches, St. Mary's and St. Michael's, which were endowed with a carucate of land, free from the payment of taxes to the king or any one else, except the Danegel.

Dr. Whittaker had entered at very great length, and with an extraordinary degree of acuteness and discrimination, into the question of the situation of these churches; and his opinion (which had been uncontroverted) was that St. Mary's was situate in the Castle Acre or Field, near what is now St. Mary's Gate, and that St. Michael's was in Alport. The town originally clustered around the Roman camp, but in the wars with the Danes it was frequently plundered. When the Conqueror came into England, he granted the land between Ribble and Mersey to Roger de Poitou; and the first record relative to the church after that was in 1150, when the then baron of Manchester, Albert Gresley, granted the church four bovates or ox-gangs of land. Opinion was divided as to whether an ox-gang was 10 or 25 acres. From this period the materials again became very scanty, but about 1192, in some charters of the Bishops of Lichfield and Coventry, we find the clergy of Manchester mentioned under the name of "deans." A few scattered notices were all that could be again found up to the year 1421. In 1313, La Warre was created Baron of Manchester, and about that time he built what was then known by the name of "The Baron's Hull," which stood between the confluence of the Irk and the Irwell, upon the spot where the Chetham College now stands. A few years afterwards there was a survey of the barony of Manchester, and a return made in 1332 states that "the church of Manchester, worth 200 marks, is at the lord's presentation, to which the Lord John de la Warr now last presented John Cuerden, who having been instituted in the same, possesses the endowment, consisting of eight burgages in Manchester, and the towns of Newtown, and Kermonsholme, with the meadows, pastures, and other appurtenances."

Mr. Ashpitel referred to the number of Flemings who settled in England at this period, bringing with them their knowledge of manufactures and commerce; and to the marked progress which was being made towards a knowledge of science. He also referred to the breaking down of the monastic system, the introduction of "secular canons," and the founding of religious houses of the order of St. Augustine. From some cause, which was not clear, the church of Manchester was converted into a college of canons. The story told by Fuller to account for this was not corroborated by any other writer; and the charter granted by Henry V. mentioned nothing of the kind. As the charters relating to this conversion had been carefully preserved and translated and printed, he need not dwell upon them. The property was surrendered to the Bishop of Durham, in trust, to appoint a proper warden and make the necessary arrangements. He first appointed Huntingdon. Hollingworth, in his "Mancuniensis," said, that Huntingdon "built the chancel and the choir, in the midst of which, before the altar, he lies buried with a suitable inscription." Hollingworth then mentioned that Huntingdon's rebus existed in the roof of the choir. His successor remained but a short time, as, having incurred the displeasure of Edward IV. he was fined and removed. The next warden was Langley, who was succeeded by one of the Stanleys, who gave up his place in a short time to James Stanley, the celebrated Bishop of Ely.

In the late Dr. Hibbert-Ware's excellent work, there was a portion of an architectural history, written by a townsman, Mr. Palmer, who said that Huntingdon built the choir and the north and south aisles; but that this choir went up only to the height of the present arches, and did not include the upper windows or clerestory: also that he built portions of the chapter-house and the short aisle near the Derby chapel: in fact, that he commenced a church which was evidently intended to be transeptal. But further on Mr. Palmer stated what appeared to him (Mr. Ashpitel) as being very extraordinary, namely, that Warden Stanley (1484-1509) pulled down all Huntingdon's work, and built what we now saw. But being puzzled by finding Huntingdon's rebus (a man hunting and a tun) in the roof, Mr. Palmer supposed that Stanley took the old roof off, laid it on one side, and then put it on the new building. In his examination of the building, he (Mr. Ashpitel) was extremely struck by finding under the tower a doorway that must be about 100 years older than the time of the first warden. He had made a section of the moulding of this doorway, and compared it with another which Mr. Paley gave as positively of the date of 1330. He (Mr. Ashpitel) then passed to the extreme east end of the church, and there, at the Lady Chapel, he found the piers of the arch also of a positive decorated character. From the peculiar form of the shafts of the piers and their fillets, they decidedly belonged to the period from 1330 to 1350, sixty or seventy years before Huntingdon was elected, or the church was made a collegiate church.

It would be important for them to consider what stood upon the site before Huntingdon's church. Here he found a very curious thing indeed, and one from which, if he did not err, he thought he might bring forward a point of considerable interest. We were told by Hollingworth, and also "by the additional MS.," No. 5,836, in the British Museum (which had never before been quoted upon the subject, but which confirmed Hollingworth in this and other points), that a large wooden church stood there, which Hollingworth said was a species of large booth, similar to that in which the court-leet and court-baron were held, although it was probably much more adorned. Upon inquiry, he (Mr. Ashpitel) was told that a portion of this wooden church was to be found in a barn at Ordsal, and another portion in what was now a barn at Stand. Stand Hall belonged to the Stanleys, and was actually built about the time that Stanley was warden, and about the time when we might suppose the old wooden church to be removed. He went to Ordsal, and was there told that there had always been at that place a tradition that part of the old wooden church was there; "and," said his informant, "here are some of the timbers of it." [Mr. Ashpitel referred to a drawing of a portion of this barn, which, he said, belonged to a building evidently possessing the character of a nave and aisles, and which had been built upon the very best plan for constructing churches where stone was not used.] But upon proceeding to Stand, he found quite a different thing. Here the timbers shown to him resembled much more what might be supposed to have been part of a chancel. It had precisely the character of the roof of buildings known to have been erected in 1350; and there was reason to believe that the old wooden church was built in 1351. If it really were the case, that they then had under consideration part of the old wooden church of Manchester, it could not fail to be interesting to the inhabitants of the neighbourhood, as well as to antiquaries and architects, as showing what the ancient wooden church was.

It had been considered that the only wooden church now remaining was that at Greensted, in Essex; but Mr. Charles Baily had made some researches in Worcestershire, and had made a sketch (referred to) of the church of Besford, which was wooden, and which still existed. This church had a positive square-headed decorated window at the east end; and it served to enlighten us as to the mode in which our ancestors built those churches, of which so much had been heard and so little is really known. In the church at Stand he found there was a window of a precisely similar character, only that it had four lights instead of two. He thought there was irrefragable proof that something of a stone building was commenced long before the wardenship of Huntingdon, and that contrary to the authority of all that had been written upon the subject. This, however, tended in reality rather to fill up a gap, than to contradict what had been written. He had no doubt that the whole of the lower part of the present tower, up to the height of perhaps half the great west window, was of a period at least sixty or eighty years before Huntingdon's time. This part was decidedly of the decorated period; but above the height to which he had referred, work of a later period would be plainly observed—the stones were larger, and the tooth of time had not gnawed them so much as in the lower part. There was one curious circumstance, that the choir of the church was not exactly in the middle. The range of columns on one side were in a line with those of the nave, while on the other side they were drawn in considerably more. It was probable that the tower was commenced at the same time as the Lady Chapel. This kind of chapel was of a late introduction, there being nothing of the kind in any early Norman building. His impression was that these portions were commenced and were going on when Warden Huntingdon was elected. Mr. Palmer thought that the arch in the Lady Chapel had been altered by Stanley; but unfortunately for this theory, another rebus of Huntingdon was found in the arch. He (Mr. Ashpitel) held that Huntingdon built the whole of the choir and aisles; and it was more than probable that his intention was to have added two transepts; for there were two walls built, against which there was a moulding, now inside the church, of a character which, in ordinary circumstances, we never found except on the outside.

Mr. Palmer said that Langley (Huntingdon's successor) was recorded to have expended 28*l.* 13s. 4d. on that part of the church betwixt the pulpit and the people; and that although the record was very ambiguous, it might be inferred that it was on the church of Manchester that he made that expenditure. The British Museum Manuscript, however, said nothing of the kind; but it did say that Langley gave to the church bells and chimes. Old Dr. Cole had written in the margin, "This cannot be correct, as chimes were not known in England at the time;" but it was certain that within a few years of that date the chimes of Evesham were put up by the abbot of that place, so that it was not improbable that the old manuscript was right; and if this were the case, Manchester might claim to have possessed the first regular set of chimes in the country. Mr. Palmer said that Langley's 28*l.* 13s. 4d. was equivalent to 400*l.* of our money, which he (Mr. Ashpitel) thought was rather over-stating the point; but even if it were equivalent to 400*l.*, that sum would go but a very little way towards building so large a nave. He thought, therefore, that Langley only commenced the nave, and that it was finished by the powerful Stanley, who succeeded him.

There was another reason for this. Both Hollingworth and the old manuscript said that Stanley built for himself and his relatives the chantry chapel now called Derby or Stanley Chapel; and there was some difference in the architecture there and in the nave. The history of the building to this point might be best elucidated by supposing that the work of Huntingdon was carried on by Langley as far as he could do it—perhaps about half-way; that it was completed by Stanley, who then built his own chapel and the beautiful little chapter-house. Stanley's example seemed to have created a feeling in Manchester, for which he (Mr. Ashpitel) knew no parallel anywhere else. Before the Derby Chapel could have been completed, the Jesus Chapel was built by Bexwith, a merchant of Manchester, in 1506; the Trafford Chapel next to it, was, according to Hollingworth, built in the same year; the St. George's Chapel was built by Galley in 1508, and the Strangeway's Chapel in the same year; the Oldham Chapel was built before 1519, and the Bibby Porch very soon after.

The incrustation of the church, with all these chantries, gave it the most picturesque effect that could be imagined. There was nothing like it that he knew of in England—it having five aisles—except at Chichester, and a portion of St. Michael's Church in Coventry. It reminded one of the mosques at Cordova

and other places, where you seemed lost in a an endless perspective of column and arch; it gave a peculiar play of light and shade upon different parts of the architecture, which it could scarcely be credited could be given, and produced an effect which no other style of building could produce. If the unfortunate piece of tapestry in the choir were removed, the effect would be almost unequalled. The choir was certainly of remarkable beauty; the architecture was extremely light and pure, and the woodwork was of remarkable elegance; he scarcely knew anything in England to equal it. There were decidedly two species of woodwork in it—one of a ruder class, such as the western screen, and another of the most elaborate beauty and exquisite finish. There was nothing like it except at Winchester, which was said to be Flemish work; and it was not at all impossible that the work here had a similar origin. [Mr. Asphitel entered into further details with respect to the choir, and described some of the grotesques there.] He must mention, in justice to Mr. Palmer, that some time ago, when repairs were being made in the church, what was called a "water table" was found. From this circumstance, Mr. Palmer considered that the nave was only originally of one story. There certainly appeared somewhat of a later period in the clerestory windows, but from the great number of repairs which had been made, it was almost impossible to say what was original, on one side, and whether any original work remained. But if he (Mr. Ashpitel) were right with regard to the wooden church standing against the tower, but before it was completed, and before Huntingdon's time, it would at once account for the existence of the water-table. It was not improbable that the altered character of the clerestory might be attributable to the changed architects under Bishop Stanley. With regard to the effect of the tower, its top was certainly very fine. It was the only instance in England in which the angle was crowned with three pinnacles, which produced a very picturesque effect, by getting a cluster at each angle.

Referring to the numerous repairs which had been going on in the church ever since at least 1685, Mr. Ashpitel said that all those repairs and restorations had evidently been carried out with infinitely more care and judgment, and adherence to the original design, than was the case, under similar circumstances, in some places which the Association had the fortune to visit. There had undoubtedly been some things done which might be objected to; but this he thought might be mainly attributed to the ignorance which had existed with regard to the principles of Gothic architecture. He thought that, in the present day, with our increasing knowledge generally and our consequent veneration of the relics of the past—and with the increased knowledge which we now possess with respect to Gothic architecture—he need scarcely call upon the inhabitants of Manchester to regard with, he had almost said great affection and reverence, their fine old church. If his address tended to awaken among local antiquaries a desire to investigate more fully the points he had thrown out, he should feel himself amply repaid for the labour he had bestowed upon his research.

POTTERY AND PORCELAIN.*

THE curious and interesting gossip with which Mr. Marryat's elegant volume is replete will doubtless render it an acceptable companion in every drawing-room. It would have gone directly to the heart of the master of Strawberry-hill. But its interest is of a far more general and more appreciable kind than to limit its attractions to mere collectors of crockery. We have here the first really popular contribution towards the historical development of a most ancient and instructive branch of decorative art, which will be found to shed a strong explanative light on the innermost mysteries of domestic and social life, from birth to death, in the most remote antiquity, and down to the present time; and in connection with the author's own researches, which are limited to later ages, we are told that earlier epochs are already under treatment in a similar style. Heretofore the majority of publications on this curious subject have been either learned disquisitions on the mythology of the Greek classical paintings, or, on the other hand, mere technical details of the manufacture of pottery and porcelain, while a knowledge of the different kinds appears to have been limited to the dealers.

"The existence of pottery," as observed by the author in his Introduction, "has proved of the highest value as an aid to historical research. From the pottery of the tombs we learn the domestic manners of nations long since passed away, and may trace the geographical limits of the various great empires of the world. The extent of ancient Greece, of its colonies, and its conquests, is clearly to be traced through each division of the Old World by the Grecian funereal pottery, which, distinct in its character from that of any other, long survived the political existence of the Grecian empire.* The limits of the Roman empire are, in like manner, deduced from the remains of the Roman pottery: beyond the spot where Arminius repulsed the Roman legions, no trace of Roman pottery has been found, and the frontier line of the Roman dominion in Britain is marked out in a similar manner. The extent of the Mahomedan empire in the Old World, and the Aztec dominion in the New, would alike be clearly pointed out by their pottery if no other record of their conquests had been transmitted to us."

By some portions of the book we are incidentally led into the reflection that the ancients almost anticipated and stole from us an idea, exclusively, as we had thought, THE BUILDER'S,—namely, that terra-cotta—a sort of pottery, in fact—would be an excellent, because a cheap and durable, material for funereal monuments or tomb-stones, for the poorer classes, if inscribed with the names and genealogical correlations of the dead before exposure to the pottery fire. And though a departure so far from the subject, or, at least, the book, now under review, we must here further strengthen the argument against the virgin novelty of our own suggestion by a brief allusion to a recent discovery of ancient customs, still more to the point than any, it may be, to be gathered from known records, even when the present volume was written.

In the Ethnological sub-section of the British Association, held at Edinburgh lately, Dr. Hincks made some observations on the language and mode of writing of the ancient Assyrians. This called up Major Rawlinson, who made some remarks on the same subject, in the course of which he stated that Mr. Layard had, at Korjinyik, penetrated into a chamber which appeared to be of the same class as the "house of records" noticed by the prophet Ezra, where was found the copy of a decree of Cyrus, permitting the Jews to return from captivity. In this chamber Mr. Layard found, in terra cotta, tables piled up from the floor to the ceiling, and representing apparantly the archives of the Assyrian empire during the long historical succession. Mr. Layard had packed, by the last accounts, five cases for transport to England; and these only occupied one small corner of the apartment.

Here, then, we find that terra cotta tablets inscribed with everlasting records, like Job's writing with a pen of iron in the rock, so far from being a novelty, are as old as any of the oldest records of human ingenuity.

In the first chapter of Mr. Marryat's volume we have some interesting remarks on plates of Moorish pottery used in ecclesiastical decoration, which we shall here quote:—

"Mr. Dawson Turner, in his unpublished journal, dated Pisa, October 18th, 1825, says:—'After having returned to the conservatoire the keys of the Campo Sancho, he was kind enough to walk and show me several specimens of plates from Majorca, embedded in the walls of sundry churches in the city, to which they form singular ornaments. It was a custom at Pisa, with the warriors returning from the Crusades and stopping at Majorca to bring home this peculiar earthenware by way at once of testimony and trophy. They are accordingly only to be found in the oldest buildings of the style that we in England should call Norman. In St. Sisto and St. Apollonica, they are on the west front, and a row of them is also to be seen running along the sides under the cornice. In St. Francisco are some near the top of the campanile, which is very lofty. I afterwards observed others in the walls of two churches of about the same date at Pavia.'

Sir F. Palgrave observed similar plates on the campanile of a church in the Forum at Rome, also on the façade (of Lombard architecture) of San Giovanni in Ciel d'Oro, at Pavia, and under the eaves of San Pietro in Grado, outside the walls of Pisa: the latter were chiefly of a bright green, and covered with patterns which had every appearance of being Moorish.

The front of the Church of San Michele, Pavia,* supposed to be of as early date as the sixth or seventh century, has been ornamented with pateræ of rude earthenware, coloured with blue and yellow. One or two yet remain, and circular holes show where others of the same kind had been inserted. Similar specimens are found in other buildings in Tuscany, and the Ciceroni, who are never at a loss for an answer, tell you they were brought from Palestine by the Crusaders.

Further researches have been since made respecting the Moorish plates existing in the walls of the Church of San Sisto, from which it appears that there are now very few remaining, and that all those which are under the cornice along the side prove to be merely plaster impressions, painted to resemble the original plates, which have been stolen or taken away. On the west front there remain four of the original plates, which, from their comparatively inaccessible situation, have escaped the fate of the others. Drawings of these plates have been made, as well as of the mode in which they are inserted.

Notwithstanding the early period of the introduction of these specimens of Moorish pottery, it would appear that they remained a long time admired and venerated as religious trophies, before they were imitated, as there exists no record of any manufacture of majolica in Italy before the fourteenth century, nearly 200 years after the period already mentioned.

Luca della Robbia, born in 1388, was an eminent sculptor in marble and bronze, and worked both at Florence and at Rimini. Having abandoned his original employment for that of modelling in terra cotta, he succeeded, after many experiments, in making a white enamel, with which he coated his works, and thus rendered them durable. Vasari writes of him, 'che faceva l'opere di terra quasi eterne.' His chief productions are Madonnas, Scripture subjects, figures, and architectural ornaments: they are by far the finest works of art ever executed in pottery. He adorned the Italian churches with tiles, as well as with altar-pieces, in terra cotta enamelled; and he is the founder of a school which produced works not much inferior to his own. The 'Petit Château de Madrid,' in the Bois de Boulogne, near Paris, received the appellation of 'Château de Fayence,' from having been ornamented with enamelled tiles, the work of an Italian artist, named Girolamo della Robbia, a grand nephew of Luca, whom Francis I. brought from Italy. This château is now wholly destroyed. The tiles seem to have been introduced into portions of the architectural composition, rather as accessory ornaments than as a 'lining' or revêtement of the walls. Analogous ornaments, the work of Luca de Maiano, 1521, were to be seen in the old gate, Whitehall, and at Hampton Court."

On the ancient and modern skill of the Chinese, Japanese, and other orientals, in the porcelain manufacture and decoration, there are many interesting particulars, amongst which perhaps the following, on the Porcelain Tower near Nankin, and the Chinese process of porcelain manufacture, may be worth quotation:—

"The tower was constructed A.D. 1277, and offers sufficient proof of the durable nature of porcelain. This building is of an octagonal shape: it consists of nine stories, and is very nerly 300 feet high: its entire surface is covered with porcelain of the finest quality. Although this singular and beautiful edifice has been erected nearly 600 years, it has hitherto withstood all the alternations of the seasons, and every variety of weather, without exhibiting the slightest symptom of deterioration.

Marco Polo, the Venetian, was the first European traveller on record who penetrated into China. He mentions the vast extent to which the manufacture of porcelain was carried at the time of his residence in the celestial empire, during the thirteenth century, and states, 'that of this place, Kinsai, there is nothing further to be observed, than that cups or bowls, and dishes of porcelain wares, are there manufactured. The process was explained to be as follows:—They collect a certain kind of earth, as it were, from a mine, and, laying it in a great heap, suffer it to be exposed to the wind, rain, and

* "Collections towards a History of Pottery and Porcelain, in the 15th—18th Centuries; with Description of the Manufacture, a Glossary, and Monograms." By Joseph Marryat. Illustrated with coloured plates and woodcuts. London, Murray, 1850.

* The Grecian funereal pottery existed as a manufacture, perhaps, not less than 1,200 years; from about the ninth century before the Christian era to about 350 years after.

* See Murray's Handbook of North Italy, under the head "Pavia."

sun, for thirty or forty years, during which time it is never disturbed. By this means it becomes refined, and fit for being wrought into the vessels above mentioned. Such colours as may be thought proper are then laid on, and the ware is afterwards baked in ovens or furnaces. Those persons, therefore, who cause the earth to be dug, collect it for their children and grandchildren.'

The Portuguese traders, who first doubled the Cape of Good Hope, were the means of introducing the fine wares of China into more general use in Europe; and the name assigned to the fabric, as distinguishing it from the coarser descriptions of pottery, was probably given by them, 'Porcellana,' signifying, in the Portuguese language originally 'a little pig,' and afterwards 'a cup.' This term had been applied by the Portuguese to the cowrie shells.'"*

Some interesting historical details on the subject of tiles, English, Flemish, Norman, Mahomedan, Persian, and others, which our limits prevent us from doing more than merely indicating, will be found in the appendix, pp. 290—5.

The work is full of curious or tasteful specimens of articles in pottery and porcelain, both in shape of woodcuts and of other engravings on a larger scale, illuminated with metallic and other colours, and the whole book is beautifully printed throughout, and altogether a credit to Mr. Murray as a publisher.

ON LINEAL EXPRESSION AND ARCHITECTURAL DESIGN.†

SHADOW AND ORNAMENT.

HAVING considered as to the nature of the forms productive of beauty, &c., let us see how Shadow and Ornament produce or aid the same.

Shadow is the inseparable companion of actual form; it is born, as it were, of it by Light, and becomes capable of expression, as it reflects its parent, or defines its receiving form. The wonderful and splendid power of shadow is a thing which the architect of late times seems studiously to have avoided. It is as though the painter were to give up his chiaro oscuro, and depend on outline alone.

This is more excusable in the painter, for such is the wondrous perfection of the beauty of the human figure in form alone, that it possesses singly a deep and overpowering charm: but this perfection the architect cannot obtain, on account of the great admixture of straight lines in his work; therefore it is, that shadow should be of such consideration to him! and such is its power that, although the building and ornament be actually bad, as regards form, as in many of the Byzantine churches of Italy, yet this one cause will by itself redeem them, and excite a profound impression. What, then, can be more unaccountable than to neglect the study of it?

In lands such as Italy and Greece, where the sun's constancy and the clearness of the atmosphere are pretty well assured, the component parts of the buildings are not remarkable for their power of shadow,—it is the light which which predominates; their beautiful outline, touched by beautiful light, stands forth clearly and distinctly against a blue sky. The beauty of form has been their aim, and most sensibly, for it was a power peculiarly fitted for development in their climates; and as the noblest power always received the deepest attention from that wonderful race the Greek artists and architects, I cannot help thinking that this was probably a chief motive in placing their temples in a clear space, or on elevated spots. Not that they neglected shadow, but rendered it, as it ought abstractedly to be, subservient to form, and ornament subservient to both: they are, indeed, perfect works of art in these countries, for they are excellently consistent with themselves and with all nature around them.

Unfortunately we live in a land peculiarly unfitted for the development of sculptured art in the open air, both as regards form and shadow, because a clear atmosphere and the sunlight are requisite for each. It is in atmospheric clearness we are most deficient, and our first consideration should be, how to suit form to it. It is evident that the profiles of Greek and Roman mouldings, perfectly expressed in Greece or Italy, cannot be perfectly expressed in England, nor can the projection of mouldings or other parts have the same effect here, for our misty atmosphere, especially in cities, deadens the outline of the moulding by assimilating it to itself, and obscures our medium of sight; and the projection, whose effect depended on the presence of sunlight, cannot be equally fitted for the absence of sunlight; the same with recessions. Now is it not clear and reasonable, that the predominant means of producing effect should be the predominant cause of effect? And if the presence of the sun is more frequent than the presence of atmospheric clearness, then the sun should be the predominant cause of effect. But the sun, though it predominates, does not shine constantly, and thus, though the building should be more adapted for sunlight than atmospheric relief, yet it should be independent of either in their perfection. Sunlight and atmospheric clearness are not concomitant with us. It is no exaggeration to say that our atmosphere *never* attains to the clearness of southern countries, and is materially unfitted for the proper development of true Grecian or Roman profiles. The sun does often shine, and is excellent for the expression of shadow, even in smoky cities, but the atmosphere is never clear enough to be fitted for the development of delicate profiles. Which, then, should claim our first consideration in design? Beauty of profile must succumb in this country from its highest place, and be content to reign in conjunction with shadow, if not to be subservient to it. And it was the perception of this necessity which forms one of the great charms of Gothic and Norman architecture, and was the under idea of Sir C. Wren, as evinced in the detail, the ornament, and the massing of his buildings.

For shadow is so indispensable to the development of perfect character in a building, that when nature is not favourable to its production, all that human art can do should be done to gain it.

That the necessity for shadow is not however the same in all classes of buildings may well be supposed; for instance, the grander or stronger the character to be expressed, the less need there is of it. We may see this as regards grandeur in the pyramids, in the wall of the forum of Nerva, and the walls of fortified towns. And as regards strength, in the Pitti palace, Florence, and the generality of Tuscan palaces, the Palazzo Thune, Vicenza, the Palazzo Farnese (north), and most of the Roman palaces.

In all these, the simplicity of the form being essential to their effect, it follows that the shadows should possess the same character, and any complicated or broken shadows given them would be wrong, because not consonant with the nature of the containing forms. The most remarkable union of strength and shadow perhaps to be seen is St. Paul's, Covent-garden.

But, for the full development of a more truly beautiful character, we may turn to the temples and monuments of ancient Greece and Rome, where, as before remarked, shadow is carefully studied, and expresses the beauty of the various forms, as in the fronts of the Parthenon, Pantheon, the triumphal arches, the Coliseum, and in modern works, in the Basilica Vicenza, the Loggie of the Vatican, the Palazzo Bevilaqua, Verona; the Lion's-court of the Alhambra; the Library of St. Mark, Venice; Whitehall.

There can evidently be no rule for the quantity of shadow, appropriate to so many different grades of the beautiful in architecture, but we may be pretty sure from these excellent examples that the shadow should be of a medium power, not superior to the form, and consequently that all projections and recessions in massing or ornament should be of a medium character also, obtaining neither the largeness of the grand, nor the brokenness and depth of the picturesque.

To the picturesque, however, shadow is most necessary, and to a great degree indispensable. The proofs are so numerous in the architecture of the north, that it seems needless to mention them. Where is the Gothic or Norman building that in its porches, arches mouldings, ornament, and plan, does not show this?

As to the relative examples of shadows as adapted to the expression of form, among painters one might mention Michaelangelo and Volterra, Raffaelle, Leonardo, and Guido, Salvator and Rembrandt.

Whatever style of architecture we adopt, it is not sensible to make use of those exact forms of mass or detail which were intended for an entirely different climate, and for an effect which we in England can seldom, if ever, hope to obtain. But the shadow which nature has denied us may still be gained by the effective, because sensible practice of northern art, deeply-cut mouldings, great recession of apertures, or great projection if the nature of the wall does not admit of the former, and ornament thoroughly pierced,—all will hold shadow in themselves, strong and expressive, though no sun should touch them, and are doubly charming when so relieved. It does seem a great fault in the architect's education that the importance of this subject should be so generally neglected, and that his art should be taught him as a matter of mere outline, form, or proportion; that, in fact, the effect of a single voice should be so cultivated, whilst the additional charm of a second is almost ignored.

But in designing, it should be remembered, that parts which hold shadow in themselves, such as mouldings, ornaments, &c., should not be confounded with those which shadow another part; as in eaves, angles, walls, and detached columns. These do not hold darkness to nearly the same degree, and this degree is weakened as they extend or project. I know of no case where the extra and needless expense of detached columns is more seen than in the School of San Rocco, Venice, facing the north.

As regards ornament, under which head we will not at present consider mouldings, but the design and cutting applied to them and carver's work in general, the first requirement is that the work should be good in itself, consistent with the character of the building, and expressive of its purpose; well and carefully cut as it approaches the eye, more deeply and roughly cut as it is distant.

The actual objects to be applied, who shall determine? For Nature, in her infinite variety, is given us for a storehouse: it is in the appropriation and application of her resources that the true artist is shown. In saying this, I do not say discard the standard ornaments of any style; in every such style we and the world also have a fixed idea from habit of the ornament fitted to it, which should be deviated from with the greatest caution, because also it grew with each style, and in each fulfils its purpose: even the extra depth of cutting necessary in some styles to obviate the obscurity of the atmosphere should be carefully done; or we shall do that which opposes the general character of the building. Wren has shown great judgment in this respect. Italian architecture has been fitted by him as far as it ever can be, in form, shadow, and ornament, to the requirements of our land; and he who should Gothicise it still more would soon find himself verging on another style, bearing more of what is called Elizabethan character. It is necessary to mention one custom of this period (Wren's) which is earnestly to be deprecated, viz., the exact imitation of the object represented, placing aside the cut-up appearance it produces, as may be especially seen in the festoons at Hampton Court. It is against the just principle of consistency, for, as architecture is in a great degree unnatural, that is, the exact copy of no type in nature, so also should architectural ornament not be the exact copy of any natural model. Moreover, in choosing the model, great care must be taken that it has in itself an expression analogous to the style, as shown in the application of the ivy, vine, thistle, and picturesque foliage and figures in Gothic art; and in the egg and tongue, volutes, honeysuckles, and beautiful figures in Grecian art; and here it may be remarked that the pervading character of the mass is constantly, if not always, exaggerated in the mouldings and ornaments, which not being so immediately or individually perceived, aided nevertheless in producing the effect. Thus, for instance, the mouldings of ancient Greece

* It is rather an odd circumstance that in Scotland pottery or porcelain of all sorts is occasionally called by the vulgar, "pigs." And we may here note, too, on Coleridge's idea that words of similar sound have often had an origin so closely connected as to involve something more than a mere pun, however absurdly or ridiculously disconnected they may now appear, that a whole tribe of oriental porcelain ware was called "Celadon," a name still used in France.

† See p. 338, *ante*.

or Rome, and any concomitant figures or foliage, are more graceful than the expression of the general mass or outline, which is beautiful, and, in northern architecture, are more grotesque than the general character, which is picturesque. J. B. W.

ORIGINALITY IN ARCHITECTURE.

I FEEL a strong inclination to send you a sort of exposition of the principles on which I have made an endeavour after original architecture in the design, bearing my name, in the Architectural Exhibition,—the "Design for a Contemplated Public Building." Perhaps I run a risk in thus taking myself for my text; but, as I have assumed somewhat of the position of a reformer, and have been met with the reasonable maxim, that the faultfinder ought to supplement his theory with practical improvement, I am glad to have an opportunity of making an endeavour, and I hope I need not allow false delicacy to prevent me from explaining to my fellow-workers what my endeavour is.

I have only one prefatory remark to make:—it is not fair to call upon the theoretical reformer for practical proof till *the opportunity* is afforded him. If young minds now-a-days denounce non-originality, it is not therefore reasonable to demand of themselves at once all things new: it is something, and a great thing, to have conceived the idea,—to have attained the theoretical and abstract fact, however bare and yet unfruitful it may be; and a generation, perhaps, may pass before the theorizer in his maturity of thought and opportunity produces the proof, or even another and another generation before the difficult task is accomplished by his children. Therefore, he does his best for reform who avails himself of the opportunity,—uses his most careful endeavour to accomplish perhaps a small beginning, and hesitates not to explain how he has attempted it. In my present endeavour I do not know that I have succeeded: the fancied success of to-day is often too plainly seen to be a failure to-morrow; but certainly your own kind notice last week, in passing, seems an evidence that, whether I have or have not accomplished all I have aimed at, I have, at least, accomplished something from which a lesson may be drawn.

My purpose, then, is primarily to form a building of chaste and majestic front; in two stories,—the lower for the apartments of every-day use, and the upper for the public or show apartments.

It occurs to me that what is called "an order," or properly a colonnade, may serve my purpose well as the principle of the chief story. I will not, of course, form a colonnade to embrace both stories; but the lower must be a basement. I desire a simple and plain character. Let me have, therefore, a simple and plain column. I will try a square column. All the "orders" in dogmatic use are round. But I do not see why this should be so: on the contrary, I am inclined to think a square *stone* column is, perhaps, more correct æsthetically. A square column, moreover, will be a good fundamental idea for simplicity; and in the squareness of the column, also, I fancy I can see a principle for mouldings and details generally. In the mouldings I see no need for more than the fillet and the cavetto: such features as balusters and cornice modillions may be plain rectangular blocks, and the base plain graduations.

A principle which I take for granted is, that the vertical structure must connect itself with the horizontal ground by a spreading stylobate, and that the vertical line must be turned outwards again by a counter-balancing cornice. (The rationale of this I think I argued at length in your pages some four years ago.) From this I deduce cap and base, stylobate and cornice, and so on as the case may be. A heavy stylobate, by the bye, is a noble feature.

I must have doors and windows,—or rather entrances and light. I *must* keep up the integrity of my colonnade; and this may be a difficulty. No: I will merely make my wall work a screen between the columns, admitting light over it. And for honest design I ought to keep up the colonnade in the interior, which in these days of plate-glass may be easily done as I have shown,—each window being formed of a single plate to show the colonnade in its pure principle. The doors are no difficulty, and the window opening is above as usual.

Whether to make the roof appear or not is an important question. After trying the roof in many forms without success, I try the parapet; and this, if an open balustrade, is not, I think, incorrect in principle, although there is, perhaps, something in it scarcely so satisfactory in theory as if the roof were made part of the design. Moreover, it will be found, I think, that a parapet has a greater effect where dignity of façade is the object. The pediment suggests itself,—but this does not serve my purpose, even if I were more satisfied than I am of the correctness of its principle. I choose the parapet, therefore, although under a sort of protest.

To keep the basement free of windows conduces to the majesty of effect; and as I can manage it conveniently, I place windows in the end and back façades alone.

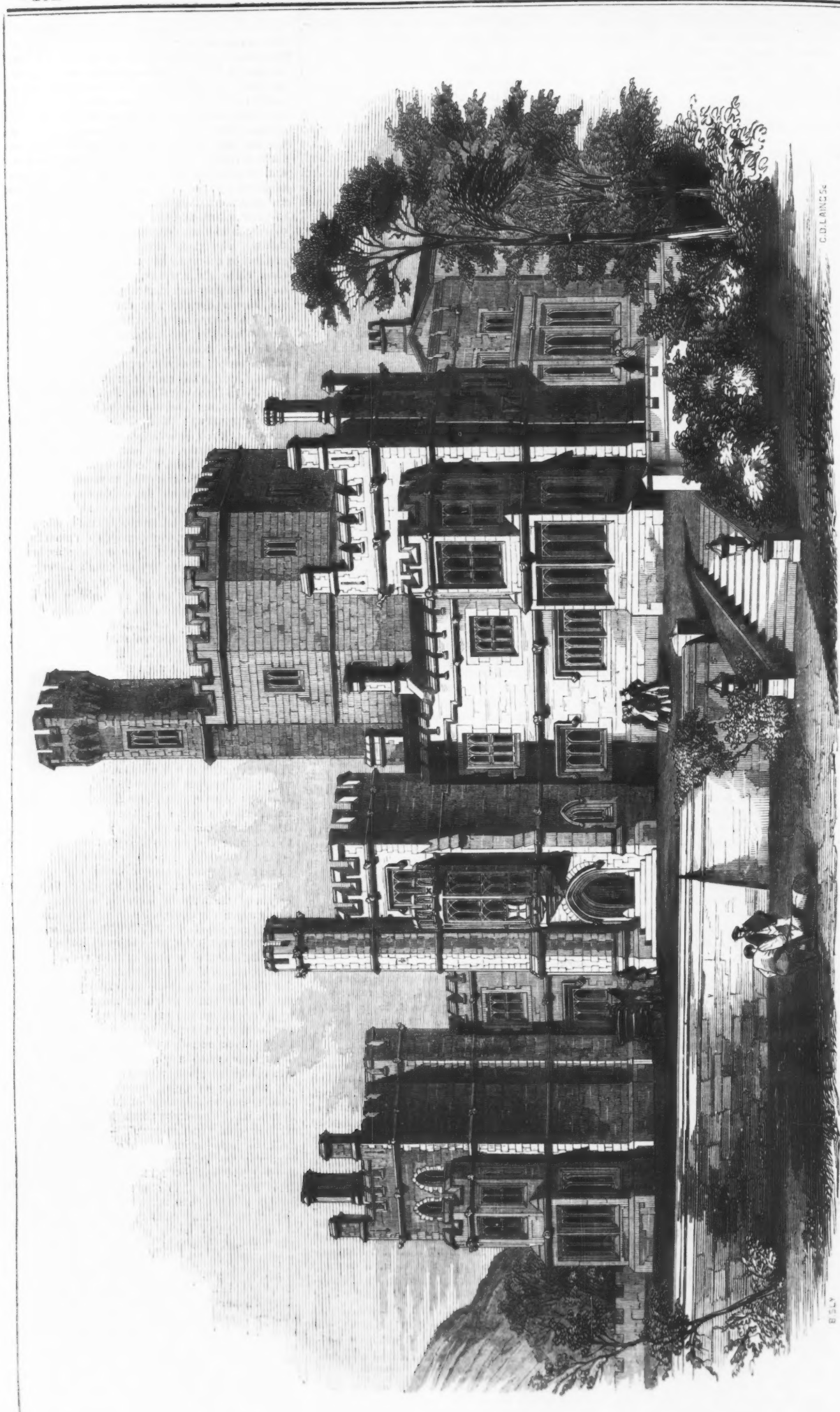
The aim of the whole design is severe simplicity, with no more magnificence than may be proposed for execution.

If you should still pass upon my work even a partially favourable verdict, the careful thought which it has cost me will be amply repaid; and if, on the other hand, my attempt should be considered to be rather a failure, it will at any rate serve to illustrate what it is that I have meant when I spoke of the process of original design. ROBERT KERR.

RAILWAY JOTTINGS.

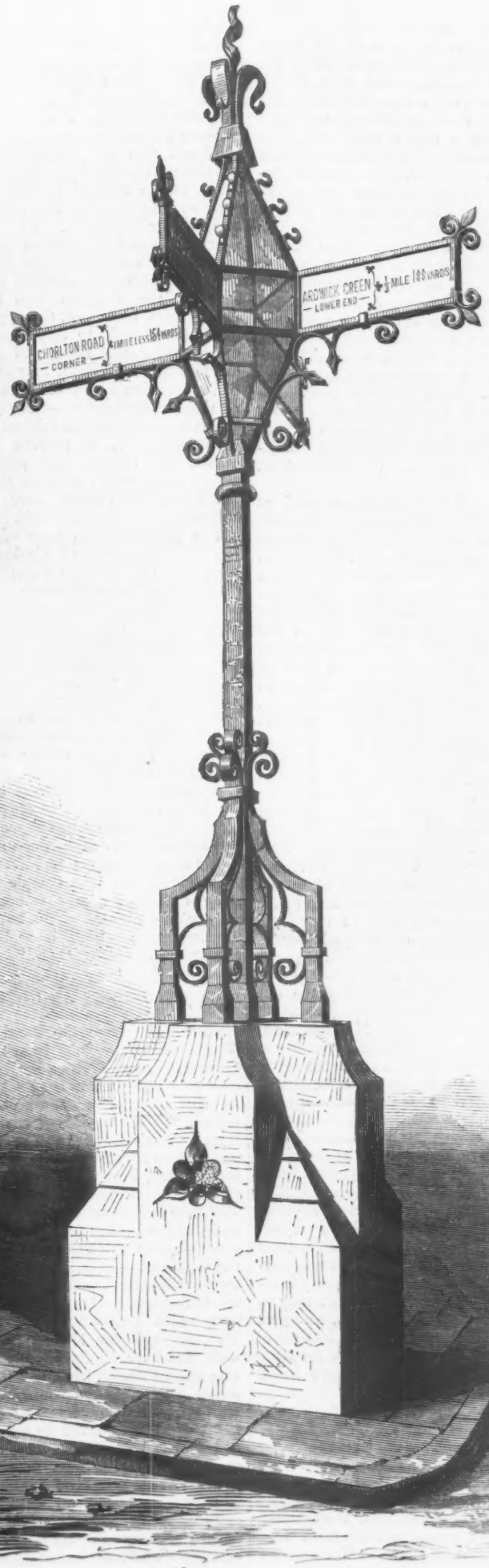
THE cast-iron roof of the Bricklayers' Arms Station of the South-Eastern line gave way on Wednesday afternoon, and the whole, extending 400 feet in length, and in two spans of 50 feet each in breadth, came down with a crash like a discharge of artillery, the whole range of buildings being at once reduced to a mass of ruins, the front wall only with the tower left standing, but in so dangerous a condition as to be every moment expected also to fall. At the time there were a large number of carriages under the sheds, and also men at work: labourers were at once employed to search, and shortly after succeeded in rescuing several porters, frightfully injured, and one quite dead. Various causes are assigned for this sad affair, but that most credited is, that while some of the workmen were engaged in turning carriages on a table, a buffer struck one of the upright pillars of the station, which so shook the whole fabric as to cause its fall. This station, it may be remembered, was erected in 1844 on the site of one, a portion of the roof of which had previously fallen, with loss of life also. A great number of men have since Wednesday been actively engaged in searching the ruins for the purpose of ascertaining whether any other parties are buried beneath the immense mass of iron and stone work. The northern line of roofing stands entire; but, from the fact of the other two forming its main support, the men were obliged to place poles against it, to prevent it also from toppling over. At the time of the disaster there were from 150 to 200 workmen there, but it is believed no passengers or strangers.* ——The recent opening of the Great Northern to Peterborough has turned public attention to the remainder of the line as yet unfinished. That part of the main trunk to the north of Retford being mostly completed, the company have now commenced operations between Retford and Peterborough, and Messrs. Oldham and Sons have contracted for that portion of the line between the former town and Newark. These gentlemen having obtained possession of certain tracts of land in the neighbourhood of Tuxford and Markham, where the heaviest portions of the works lie, have set on a number of hands at Tuxford. An understanding as to fares and tolls, it is said, has been come to with the London and North-Western.——The opening of the bridge over the Tweed, at Berwick, on the York, Newcastle, and Berwick line, by her Majesty and the Prince, has been fixed for the 29th inst., when also the central station at Newcastle will be opened, for the reception of the royal passengers.——The last lift of the last tube of the Britannia Bridge was completed amid much acclamation on Friday in last week, and everything is said to progress so satisfactorily that the entire structure will be opened a fortnight earlier than was expected.——The engine drivers and firemen of the Eastern Counties have struck. They complain of unjust fines and capricious discharges for the purpose of getting rid of them for less experienced but cheaper men. New hands have been appointed in their place, and the old have been looking closely into their characters and accomplishments. Meantime the directors have suspended or discontinued the running of no less than eight daily trains, including "all trains on the Maldon and Braintree branches." The old hands declare that they will not return under the present superintendence, and they have submitted propositions which the directors have refused to comply with. The latter have, however, remitted fines complained of, and paid the wages of those suspended for alleged faults. The drivers and firemen, since their resignation, have had various meetings and deliberations on the subject of their grievances, and the directors, on the other hand, have issued their version of the case, in the form of communications in the daily press. It is not easy, at present, to form any clear opinion on the subject.——On the subject of railway comforts at home and abroad, Mr. Dickens, in his *Household Words*, has the following, among other remarks:—"On the French railroads (setting aside the question that the fares are much lower), the second class carriages are comfortably cushioned, having pretty silk blinds to keep out the sun; windows that really are capable of being pulled up and down, besides hooks for hats—a great convenience on a journey. In winter, in an English first class carriage, there is no protection against frost and damp; but in nearly all the foreign railways, no sooner does the winter set in than the first-class traveller finds the bottom of his carriage provided with a long tin case full of hot water. Comfort in railway travelling, is, however, brought to the highest perfection in Germany. An esteemed correspondent at Vienna writes to us on this subject in the following terms:—On the '*Wiener Neustäder Eisenbahn* (Vienna and Neustadt Railway), the carriages of the first, second, and third class may each be said to resemble a spacious room, furnished with seats, something like a concert-room, and having a broad passage down the middle. Attached to each carriage, and going *the whole length of the train, is a broad wooden plank, along which the guards are constantly walking, so that the slightest thing amiss could scarcely occur without their perceiving it immediately.* Just before the arrival of the train at any station, one of these functionaries quietly opens the door, and, instead of calling out, walks without any hurry or bustle down the division from one end to the other, repeating, in a clear and ordinary tone of voice, the name of the station approached, and requiring the tickets of such as are to alight there. With such an arrangement—giving ample time for the gathering together of coats, canes, umbrellas, reticules, and so forth—even Martha Struggles herself might have got through a journey unscathed and 'unflustered.'"——The railway calls for the month of August, so far as they can be at present ascertained, amount to 195,936*l.* against 1,154,527*l.* at the same date last year. The proportion called by foreign companies is 22,211*l.* In August, last year, there were no calls by foreign companies. ——On Friday week a locomotive engine, only 10 tons in weight, instead of 25, arrived at Waverley-bridge from Glasgow, with a train of six carriages. The engine is said to be on the principle of Adams's patent, designed for short distances, and is only to be attached to a single carriage, capable, however, of carrying about 100 passengers. The experimental trip was understood to have been quite successful.——Lord Brougham, in the House of Lords, has affirmed a decision of the Lords Commissioners finding provisional committeemen not liable, by mere consent to have their names on the list of provisional committees, to be called on to contribute to expenses afterwards incurred.

* When time and inquiry shall have elicited, if possible, some further insight into the mysterious cause of so much mischief, we shall, of course, recur to this very serious and most startling event: that a most searching investigation *ab initio* must be made is but too obvious, and that we will narrowly watch the progress and result of that investigation we need hardly state: meantime all that we or any one can do, under present circumstances, is to report the facts together with the rumours current at the time of going to press.



HORNBY CASTLE, LANCASHIRE.—MESSRS. SHARPE AND PALEY, ARCHITECTS.

[See p. 397, *ante*.



SIGN-LAMP AT MANCHESTER } George Truefitt Architect

See page 397, *ante*.

THE BUILDING IN HYDE PARK.

At a meeting recently held in Bakewell, Mr. Paxton gave the following particulars of his intended building. He said it would be 2,100 feet long by 400 broad. The centre aisle would be 120 feet broad, or 10 feet wider than the Conservatory at Chatsworth. When he commenced designing this building he knew that so vast a structure as this must necessarily be made as simple as possible in its details, else it would be impossible to carry it out. He therefore endeavoured to make it up with as few details as possible. The glass and its iron supports comprised the whole structure. The columns were precisely the same throughout the building, and would fit every part: the same might be said of each of the bars; and every piece of glass would be of the same size —namely, four feet long. No numbering or marking would be required, and the whole would be put together like a piece of machinery. Mr. Paxton explained that the water is brought down valleys on the roof, and thence down the columns; that the water in no instance has farther than 12 feet to run before it is delivered into the valleys or gutters; and that the whole is so constructed as to carry the water outside, and the condensed water inside. The building is divided into broad and narrow compartments, and by tying these together there is little for the cross-ties of the centre to carry. The building is entirely divided into twenty-four places—in short, every thing runs to twenty-four, so that the work is made to square and fit, without any small detail being left to carry out. The number of columns, 15 feet long, is 6,024: there are 3,000 gallery bearers; 1,245 wrought-iron girders; 45 miles of sash bars; and 1,073,760 feet of glass to cover the whole. The gallery of the building would be 24 feet wide, and would extend a distance of nearly six miles. Now if, after the purposes of the exhibition are answered, it was thought desirable to let the building remain—and he sincerely hoped it would not be pulled down nor shipped to America—if they chose to let it remain, see to what a purpose it might be applied. There might be made an excellent carriage drive round the interior, as well as a road for equestrians, with the centre tastefully laid out and planted, and then there would be nearly six miles of room in the galleries for a promenade for the public. With regard to the ventilation and the rays of light, he would say that the former was a very peculiar part of the plan. The whole building four feet round the bottom will be filled with louver, or "luffer" boards, so placed as to admit air, but exclude rain. On the inside of that there will be a canvas to move up and down, and in very hot weather it may be watered and the interior kept cool. The top part of the centre building is put up almost entirely for the purposes of ventilation; and he thought it would be found that, if he had erred at all in respect of the means of ventilation, there would be found too much rather than too little. By covering the greater part of the building with canvas, a gentle light would be thrown over the whole building; and the whole of the glass at the top of the northern side of the building would give a direct light to the interior.

This, it will be remembered, is the projector's own statement, not ours.

BUILDING WORKS IN IRELAND.

The Poor-Law Commissioners are erecting the following union workhouses through the country, according to drawings furnished by their architect, Mr. George Wilkinson; viz., Killedysart, county Clare, to cost about 5,000*l.*; Skull, about 5,000*l.*,—Clonakilty, about 5,200*l.* —both in the county of Cork. Also one at Dromore West, cost about 4,500*l.*; and at Newport, county Mayo, cost about 5,100*l.* There have been plans, &c. furnished, and tenders received by Mr. John Louch, architect, for additions to St. Mathias's Church, Dublin. The style of the present building is Grecian. There is also a school-house in connection with this church in progress of erection: cost, when complete, will be about 1,000*l.*: the drawings, &c. have been furnished by the same architect.

The Society of Ancient Concerts are erecting additions to their concert-rooms, Dublin,

consisting of new dining, drawing, and practice-rooms, at rear of present buildings: the plans are by Mr. N. Jackson, architect: the cost will be about 1,590*l.*: Mr. G. Farrell, builder.

The Museum of Irish Industry, Stephen's-green, Dublin, is nearly finished: it has been erected on the site of the late Lord Manners's mansion, and embraces the two adjacent houses: Mr. Geo. Papworth is the architect.

The Board of Superintendence, Kilkenny, are erecting large additions to their gaol, for the accommodation of an increased number of inmates. The style of those buildings now in progress is Early Norman; the designs were selected from a number of others in competition: Mr. Wm. D. Smith, Dublin, is the architect.

The Board of Superintendence of Newry are adding considerably to their bridewell. The drawings have been supplied by Mr. W. F. Caldbeck, architect. The cost will be about 1,300*l.*

The Board of Public Works are erecting a wing building, and adding an additional story to part of the Lunatic Asylum, Grangegormanlane, Dublin, for the reception of a larger number of lunatics.

The Royal Arcade Hotel, Dublin (Mr. Anderson, proprietor) is being considerably augmented. Mr. Caldbeck, architect. The style is Italian.

There is a new court-house erecting at Newtownards, from the designs of Mr. Caldbeck, to whom the premium of 25*l.* was awarded in competition for the same. The cost will be about 2,000*l.*

The Ecclesiastical Commissioners have advertised for tenders for altering and repairing the churches of St. Paul, city of Cork; Ardnageehy, Ballycotton, and Carrigrohane, county of Cork.

The Great Southern and Western Railway Company are at present laying out thousands of pounds at the Blackwall terminus, Cork. Extensive stores and offices are being built, and as they are all fire-proof, no such accident as the late burning of the station-house can again occur. The company have arranged with Mr. Paul M'Swiney, of that city, for the erection of an extensive iron roof, resting on metal pillars. A considerable portion of the work is complete. An adjacent iron bridge has also lately been constructed, the materials of which were supplied from the foundry of Mr. M'Swiney. In consequence of the number of men employed at the terminus, and the necessity of having the officers on the spot, the directors have resolved on building a large square of houses, for station-master and men employed to reside in.

The Roman Catholic Chapel of St. Columbkill is about being erected at Clonmore, county Louth, from the designs of Mr. John Bourke, architect. The style is Gothic, of the middle period—the plan cruciform. At the angle of the south elevation there is to be a large square and lofty tower, with buttresses, and surmounted by a spire.

THE BUILDINGS OF ANCIENT GREECE.

PROFESSOR RANGABE read a paper at the recent meeting of the British Archæological Association, on the additions made to our knowledge of Greek art by recent discoveries, from which we extract those portions that relate specially to architecture.*

"In Arcadia—the dwelling-place of the Pelasgians, who pretended to have seen the creation of the moon, and who at least preceded the Hellenic race—polygonical walls are discovered every day; and in a valley unknown to travellers, between the Lake Stymphalus and the Mount Trachys of Orchomenos, I had myself the happiness, two years ago, of discovering at the very spot where Pansanius (viii. 23) places it, the town of Halea, long sought for, and not as yet perceived by any of my predecessors. This ruin presents one of the most imposing examples of Pelasgic architecture, and at least two-thirds of it are in a state of rare preservation. Its form is that of a triangle, whose basis lay along the foot of the mountain, and whose two sides rise up on its flank. The latter only are standing, and they attain often a height of 5m., and contain 37 square towers. A parallelogram traced on the summit of the triangle, forms the acropolis of the fortress, whose walls are composed of gigantic polygonical blocks, and the lintel of whose doors consists of two inclined stones, which mutually support each other.

But in Argolis, the very seat of the power of the Atrides, the discoveries have not been few. At the same time with Halea, I saw in a little valley, separated from the Argolic plain by a rising ground, and quite close to Mycenæ, a square edifice till then unknown, of the finest polygonical style, each side being 11½m. in length, and rising in perfect preservation to the height of 3m., where its coping still exists. The interior was divided into three compartments, but the separations are almost entirely destroyed. This monument is one of the most interesting that has yet been discovered, as it discloses to us a particular branch of Homeric architecture. It is difficult to believe that at so short a distance from Mycenæ, an edifice belonging to the class of those which excited so highly the admiration of the ancients, should remain unnoticed by them. I am therefore tempted to suppose that this is no other than the tower of Polygnotus, as it was called, where Aratus, on his way from Argos to Phlius, had a meeting with his conspirators. (Plut. Vit. Arat. 6 and 7.)

I was present at the excavations made at Tyrinth by the illustrious German antiquarian, Thiersch, and I witnessed the highly interesting result which he obtained. On the western side of the hill of the Cyclops he discovered a range of bases of columns; and this fact, combined with the column already known in the Treasury of the Antrides, and that of the basso-rilievo of the lions at Mycenæ, tend to modify the ideas held until now on Pelasgic architecture, and to prove that the principle of the columns—of a primitive form, undoubtedly, but containing the germ of the diverse forms developed later by the Dorians and Ionians—was, if not an indispensable part, at least an ornament frequently employed in the buildings of Homeric times. Another discovery of the highest importance to the architecture and ethnological history of that remote period, has just been made in the south of Ebea. Walpole had already seen and described (Travels, vol. i.), on the summit of Mount Ocha, an edifice of a peculiar form and of an archaic style. Its walls are composed of very large parallelogramical blocks of unequal dimensions; and its roof consists of several layers of stones, which advance on each side towards the centre, jutting out considerably the one beyond the other, instead of forming a smooth surface as in the treasury at Mycenæ. But from this specimen of architecture, curious as it was, from its differing from the usual forms of ancient art, no conclusion could be drawn to further our knowledge of that art, because it only furnished one isolated example. But at Styra, the town famous for its quarries, situated at the northern foot of the same mountain, the discovery was made, a few years ago, of three buildings of the same nature, one of which is peculiar for its roof being circular. On another peak of Mount Ocha, I myself visited, only last summer, several edifices, the evident remains of a very ancient town, suspended on the brink of an abyss, equally inaccessible by sea or by land, and known only to the shepherds of those wild regions, who give it the name of *Archanpolis*, or ancient town. These buildings are constructed on the same architectural principles; and I have heard another position described not far from the Cavo d'Oro, as the Venetians called the Caphrea, where more such ruins exist. * *

But the discoveries made in Greece since her emancipation have not less served to rectify and to extend the notions already possessed on *Classical* Architecture. The Propylea having been disencumbered from the modern fortifications which concealed them from view, and having now reappeared in all their ancient harmony, it is easily recognised that their magnificence corresponded fully with that of the immortal monuments to which they gave access, and that their superb flight of steps occupied the whole width of the entrance to the Acropolis, descended probably to the Agora, and was ornamented on either side by terraces supporting statues and temples. One of the latter, the Temple of Victory without wings, the finest jewel of the Acropolis' crown of monuments—which had disappeared between 1676, when Spohn and Wheeler travelled in Greece, and 1751, when Stuart visited it—now discovered again under a Turkish bastion, and restored, offers to study one of the purest and most perfect examples of the tetrastylos amphiprostylos of the Ionic order which exists in the world. The mouldings of its entablature, as well as those of the Propylea and of the Parthenon, bear evident traces of painted ornaments, and put it beyond all doubt that the ornamental parts of the temples were painted in Greece, like those of Sicily, in the time of Pericles, as well as at more ancient periods, when they were often replaced by terracotta. In the Pinacothek, which contained the famous pictures of Protogenes, the walls which the French or Catalanian dukes had constructed to convert this part of the Propylea into their Chancery having been destroyed, the original partitions have been brought to light; and I think that the examination of these and of the walls of the Temple of Theseus, may give the solution of the question which has been the subject of so much controversy,—namely, whether the ancients painted exclusively on the walls or on panels of wood, by proving that the Pinacothek was covered with panels, or, rather, moveable pictures; whereas the paintings in the Temple of Theseus were executed on a stucco fixed to the wall itself.

The Parthenon, in spite of the exact and conscientious work of Cockerell, when delivered of the barbaric ruins which insulted its grandeur, had still secrets to disclose; and it is well known that attentive observations have taught the astonished architects of modern times, that of all those lines whose magnificent harmony is the source of the inimitable beauty of this edifice, there is not one which is a straight line; that with a depth of science which would put to fault the calculations of the profoundest mathematician, the architect, imitating nature who avoids a straight line in her organic productions, had composed a system of curves beyond the skill of modern art to combine or reproduce.

The Erechtheum, that enigma of architecture, can also be better understood since it has been raised from its ruins; and in my opinion it is now evident that this Temple was double, in spite of its having four names, and that the singular distribution of the house consecrated to Erechtheus which it replaced had been adopted in its construction."

* Reported fully in *Literary Gazette*.

CHURCHES AND SCHOOLS.

THE new church at Rusthall, Tunbridge Wells, was consecrated by the Archbishop of Canterbury, on Wednesday last. This new church is dedicated to St. Paul, and is a cruciform structure, with a south porch and a vestry on the north side of the chancel. The style is Early English. The walls are thick and are constructed entirely of the stone of the country, from Mr. Powell's quarry. It is capable of containing 430 adults and children. The nave is internally 57 feet long and 25 feet wide, and is lighted by nine single lancet windows on the north and south sides and two in the west end, which has also a spherical foliated window in the centre of the gable. These windows have bold splays, which are formed into trefoil heads from the springing line. The transepts are 17 feet long, and 17 feet wide, and have triplet windows in each gable. The north transept has a trefoil opening to the organ gallery, and a similar doorway on the west side. The tower is 23 feet square externally, and is supported by bold splayed piers and arches with the additions of shafts and mouldings to that arch only that faces the east. The chancel is 27 feet long by 17 feet wide, and is raised two steps above the remainder of the church. The walls are perforated with an enriched triplet window at the east gable and three trefoil lancets on the sides. The shafts in the chancel are of polished Derbyshire marble, with Caen stone capitals, &c. The roofs are open throughout and stained. The tower is 78 feet high. The octagonal stone turret terminates under the upper stage, and the belfry has four moulded lancelets opening on each face, with corbelled parapet. The roofs are covered with Staffordshire tiles; and quarries from the same county are used

for the floor and the aisles. Minton's encaustic tiles are laid in the chancel, and the steps and borders are formed with Hutchisonised stone. The sittings are of stained deal and the pulpit of carved oak on a stone base. The font is of Caen stone, with carved foliage, in eight compartments. The stained glass in the nave was from Messrs. Powell's manufactory, Whitefriars, and, together with the font, altar-cloth, and communion plate, were donations. Mr. Henry J. Stevens, of Derby, is the architect of the church, and in the superintendence has been assisted by Mr. N. E. Stevens. The works have been executed by Mr. Constable, of Penshurst.——The building of the new church and schools at Forest Gate, West Ham, has commenced, on a site nearly facing the Pawnbrokers' Almshouses.——The chief stone of the Free Grammar and Commercial Schools at Loughborough was laid on Friday week.——The restoration of Whitwick Church has been so far completed that the building was to be opened on 20th inst.——A new church and a Catholic chapel are to be shortly erected at Banbury. ——The new Wesleyan Chapel, built in East-street, Southampton, was opened on Friday week. It holds 1,100 persons, and will have cost 4,000*l.* building and fitting. It is in the Decorated style. The open roof and the pews, &c., are stained in oak. There are some evident departures from the architect's design, according to a local paper.——The foundation-stone of a new school was laid at Inkberrow on Thursday week. It will accommodate 150 children of both sexes; estimated cost, 500*l.* Mr. Perkins, of Worcester, is the architect, and Mr. Robinson, of Redditch, the builder. ——The first stone of an infant school was laid at Studley, on Thursday in week before last, by the sister of the founder, Mrs. Finley, wife of the vicar.——On Monday week the foundation-stone of "the Church of the Holy Jesus" was laid at Lydbrook, Forest of Dean, and coins deposited by Mrs. Davis of East-bank-court.——The foundation-stone of a new church to be built at Ogley Hay, near Walsall, was to be laid on Thursday week. Upwards of 1,000*l.* have been raised towards the building, a site granted, a stone quarry thrown open to its erection by Mr. W. Stubbs, of Hammerwich, and various materials and teamwork promised by other contributors.——A monument in commemoration of the services and death of the officers and men of the 80th Regiment of Foot, or Staffordshire Volunteers, who fell in the Sutlej campaign, has been placed in the southern transept of Lichfield Cathedral. The work is by Mr. P. Hollins, and consists of a black marble tomb, of Egyptian architecture, surmounted by an Egyptian sphinx in white marble. In the same material, at the front of the tomb, and resting on its base, is a military trophy, and over this, at top of inscription-tablet, a basso-relievo of a soldier's funeral. The Egyptian architecture and sphinx are adopted in commemoration of honours won by this regiment in Egypt.——Christ Church, Pitsmoor, Sheffield, is nearly completed, and was consecrated, on Thursday in last week, by the Archbishop of York. It has seats for about 800, of which 560 are free. The style is Early Decorated English. The plan is cruciform, with western tower; roofs open, and plastered between the principal timbers. The entire length of the interior is 91 feet 6 inches, and the greatest breadth (in transepts) 68 feet 6 inches. Width across nave and aisles 51 feet; height of nave to ridge 40 feet. The entire cost of church and ground has been 2,650*l.* 1,850*l.* have been raised by subscription, 500*l.* given by the Incorporated Society of London and the Ecclesiastical Commissioners, leaving 300*l.* to be provided. The architects were Messrs. Flockton and Son, of Sheffield, and Mr. John Ridal was the contractor.

NOTES IN THE PROVINCES.

THE Hull Workhouse has been condemned by the guardians, who recommend the construction of a new one for the united parishes of Holy Trinity and St. Mary.——Preparations are being made for the erection of a new dock at Seaham Harbour. The foundation stone is expected to be laid in the course of a week or two.——The new church at Drigg was consecrated on Tuesday in week before last by the Bishop of Chester.——A large sculptured statue in front of Wells Cathedral fell to the ground on Wednesday in last week. The mass weighed several hundred weight.—— Glastonbury Abbey came under the auctioneer's hammer on Wednesday week, but fell into the vendor's own hands at the nominal sum of 35,000 guineas: 33,000 had been bid. The abbey will now be sold simply with the residence and its own demesne enclosed within the old abbey walls.——The Trevethin Water-works Company are about to make and complete their water-works, with reservoir, sluices, pipes, &c., on plans by Mr. T. G. Hardie, C.E., of Newport, in Wales.——A new court-room is to be formed at the Borough Court, Manchester, by Mr. Bellhouse, the contractor.——The price of Gas at Bury is to be reduced to 7s. 6d. per 1,000 feet in October. ——The foundation stone of the new workhouse at Bradford was laid on Wednesday week. ——Shares to the amount of nearly 10,000*l.* of the 16,000*l.* required have been subscribed for the new music-hall projected at Bradford. A public meeting has been held there also, for the purpose of forming a public park, as a testimonial to Sir Robert Peel. Mr. Alderman Salt has offered 1,000*l.* if the town will contribute 9,000*l.*——The foundation-stone of a new savings-bank was laid at Howden on Monday week.——The old Tuscan church of St. Bartholomew, at Whitworth, near Rochdale, is now to be sold, for removal within 8 months. ——The extensive additional new buildings to the House of Correction for the North Riding of Yorkshire, at Northallerton, are nearly finished, having been more than a year in progress. The old prison has been built up one story higher, being now three stories in height, the same as the new; by which upwards of 140 new cells have been obtained. There are extensive new apartments for cooking, washing, and other purposes, with workshops of different kinds, and two high towers have been built for ventilation. Some persons who have visited it, says a contemporary, "state that it is a fortress without, but a palace within, each cell being furnished with hard and soft water by pipes, and other conveniences for the comfort of the prisoners." A new chapel has also been built.——During a recent thunder-storm at York, the bell-turret of the new Roman Catholic Church, in George-street (Mr. Hanson, architect), was shattered, and, by a singular coincidence, Mr. Hanson's father was struck down by the lightning in the New-walk at York during the same storm, and rendered insensible. His eye was blackened and his body otherwise discoloured, but he afterwards recovered. Another bell turret was injured, namely, that of the Diocesan Training School, in Lord Mayor's-walk, and the lightning had there run along and melted a gaspipe, and set fire to the roof, which, however, was fortunately an open one, and the fire was speedily extinguished.——St. Matthew's Church, Grosmont, was consecrated by the Archbishop of York on Thursday week. If our authority be right, this church was built in 1841. Messrs. Hirst and Moffat, of Doncaster, were the architects. The building is the Pointed style, and has been constructed to hold 216 persons. The ground, with land adjacent for a burial ground, and parsonage and school-house, was the gift of the Lord of the Manor of Egton. ——A Sunderland correspondent of the *Gateshead Observer* says—"The directors of the Sunderland Subscription Gas Company, who only three years ago declared that it was impossible to supply gas with any profit at less than 7s. per 1,000 feet, having had this delusion corrected by their rivals, the Corporation company, now announce, in consequence of the success of the low-price experiment, a reduction to 3s. 6d. per 1,000; while the directors of the Corporation company, still more liberal, have reduced the price from 4s. to 3s. per 1,000 net. Sirloins as well as barons of beef will now be roasted by gas."——The Commissioners of the river Wear are about to improve the Sunderland dock entrance by removing a ledge of rock on a plan prepared by their engineer, Mr. Thomas Meik, at the pier and harbour works, Sunderland.——The Sunderland Dock Company are about to have made and erected the masting shear machinery for the design of which they lately awarded 10*l.* The company have been called on by dissatisfied parties to exhibit the prize model to the shareholders, as "they have not fulfilled their contract." Meantime the plan and specification lie at the engineer's office at the dock offices, Sunderland. ——The Town-Council of Berwick have resolved to memorialise Sir George Grey, Lord Ossulston, and the members of the borough, for their interference to prevent the Board of Ordnance disposing of the ramparts.——The Duke of Buccleuch has commenced another extensive enterprise at Granton, near Edinburgh, namely, a patent slip or railway incline for raising and repairing vessels. The design is said to be on the largest scale yet attempted, being available for vessels even of 1,200 tons burden.—— Another of the Irish workhouses, that of Kanturk, has just been burnt to the ground.

ELECTRO-TELEGRAPHIC PROGRESS.

A TELEGRAPHIC wire having been sunk in the sea and "Canal Grande" at Venice, successful experiments have been made between the railway terminus and the residence of the governor.——Mr. Livingston, a gentleman in New York, connected with the Electric Telegraph Company, has proposed to the managers of the Deaf and Dumb Asylum the experiment of employing the pupils in the work of the offices,—a duty for which their industry, perseverance, and powers of concentration are said admirably to fit them.——The *Journal de Calais* states that a number of English workmen have arrived at Calais to lay down the submarine line of international telegraph between England and France, and that they are at work at Cape Grimes.——The Electric Telegraph Company have resolved, it is said, to transmit messages between their principal metropolitan stations at a charge of 1s. for communications not exceeding 20 words.——The Queen's speech, delivered shortly after two o'clock on Thursday week, was distributed by telegraph from the Central Station, Lothbury, to Liverpool, Manchester, Leeds, Hull, Birmingham, Derby, York, Newcastle, Edinburgh, and Glasgow, by shortly after three o'clock. The speech, consisting of 502 words, was streamed off at the rate of 45 and 52 words a minute.——It has been found, as we anticipated, that gutta percha, though a good insulater, will not do as the sole or exterior covering for wires, particularly of submarine telegraphs. Water, especially salt water, converts it into a hydrated conductor. Impregnated with sulphur, it is said to resist this action of water; but for greater security, Mr. Siemens, of Berlin, recommends covering the gutta percha itself with a mixture of marine glue, coal tar, and resin. Mr. Siemens has constructed machinery for the purpose of coating wires with gutta percha. It consists of a cylinder, filled with heated gutta percha, and kept in that state by a warm-water bath. A piston working within the cylinder presses the semi-fluid gutta percha through nine holes in a conical piece at the bottom, through which the wires slowly pass through the air to the winding drums, which are at sufficient distances to allow the covering thoroughly to set before being wound up. The same gentleman, in a communication to the Academy of Sciences at Paris, recommends underground telegraphs in preference to those exposed to atmospheric vicissitudes.

Miscellanea.

REPORT ON BRITISH RAILWAYS.—The Board of Commissioners on Railways have issued a report for 1849, from which, and from certain returns quoted in it, it appears that on 30th June of last year 1,504 miles of railway were in course of construction, and 5,132 miles of authorized line not commenced, since which time up to the end of year 576 miles have been opened. It also appears that all work has ceased on about 350 miles of lines returned as in progress in 1848, and which for the present may be considered as abandoned or postponed; that no great length of new line has been commenced since last year, and probably only about 1,000 miles out of 6,030 miles which still remained to be opened at the end of 1849 were in progress of construction at that time. The reduction in the number of persons employed in constructing railways, between May 1, 1849,

and June 30, 1849, was 84,361, against an increase of 3,280 upon lines opened; and in all 200,000 persons employed of late years on railways must now be seeking a livelihood in other ways. The total amount expended upon railways at the end of 1849 was about 220,000,000*l.* At the end of 1849 the 5,996 miles in operation represented a capital of about 197,500,000*l.* The gross receipts in 1849 amounted to 11,806,000*l.*; net available profit about 6,729,420*l.* or 3.40 per cent. The passenger and goods traffic during 1849 amounted to 11,806,498*l.*, of which 6,277,892*l.* was for passengers, and 5,528,606*l.* for goods, cattle, parcels, mails, &c. The number of passengers was 63,841,539, of which 7,292,811 were first class, 23,521,650 second, 15,686,911 third, 17,203,411 parliamentary, and 136,755 mixed. The gross receipts for the first amounted to 1,927,768*l.*; second, 2,530,968*l.*; third, 711,592*l.*; parliamentary, 1,104,884*l.*; mixed, 2,678*l.* The parliamentary continues to increase considerably; for, at one period, the third produced much more than the parliamentary. Finally, it is rather remakable that what all the rampant royalty of railway kings, in the hey-day of railway prosperity, could not or would not do for the promotion of the public safety has been done by the chastening influence of a little adversity; for it appears from the return quoted in this report, that in 1849 "only five passengers were killed from causes beyond their own control, being a great reduction on the number thus returned in the preceding year. The number returned as injured by accidental causes beyond their own control has also been very much decreased, being one-third less than in 1848, so that, considering that the passengers who availed themselves of the railways in this country in the year 1849 amounted to an increase of 10 per cent. upon the preceding year, and of 16 per cent. upon the number conveyed in 1847, it is most satisfactory to perceive that there has not been a corresponding increase in the number of accidents."

THE IRON TRADE.—A notice has been issued to the men employed at the several ironworks in the Merthyr district, announcing that a reduction of wages, to the extent of 10 per cent., will shortly be made. In pig-iron more furnaces have been put out of blast in the South Staffordshire district. The quality of Staffordshire iron, too, appears to be deteriorating in the midst of other adverse circumstances. "By the admission of hot blast, with its accompaniment of cinders and other worthless materials, into our furnaces," says a Birmingham paper, "by the substitution of pigs brought from various distant parts for those made in our own district—by the introduction of squeezers, puddling from the blast, and many other questionable inventions, the quality of our manufactured iron is so affected that Staffordshire iron will soon be not Staffordshire, and will cease to be trusted for those important purposes for which it is naturally pre-eminently adapted; hence, it will cease to command a market, independently of reference to prices in other districts. * * * In becoming dependent upon export trade, we have to compete with the produce of all other districts and countries, in a field where the chief condition of success becomes cheapness of price. Without, then, an assimilation of expenses to those paid by our competitors, it is evident the struggle will be of short duration; and, however unpalatable such a step may be to the operatives, however unwilling the masters may be to curtail the enjoyment of their workmen, or whatever difficulties may be encountered in carrying it into effect, there will shortly be no alternative but a reduction of wages." A gloomy enough prospect, truly, for both men and masters. But, in the main, the exhaustion of the iron trade is but the natural collapse of a temporary system, fostered for a special purpose—that of railway formation; and, although some of its forced branches must wither, the root will remain as before, and the trade will again flourish, when reduced once more to its legitimate and permanent dimensions.

EMERY PAPER.—The Fishery Board has issued a circular, recommending fishermen to catch as many dog-fish as possible, skin them, and dry their skins for sale, to be used in lieu of emery paper, for which we happen to know that they are by no means a bad substitute.

SPANISH ARCHITECTURE.—In your criticism of our work, "Examples of Architectural Art," by the favourable notice of which we feel much gratified, and beg to return thanks for it, you say that we treat Spanish architecture unjustly, doubtless founding your belief on Mr. Ford's eulogies of it; but Mr. Ford, with whom I have had two or three interviews, is evidently a *Herrera*-en devotee, and being but an *admirer* of architecture, cannot speak authoritatively on the subject. I the think it more important to mention this, because many young architects might be induced to visit Spain, and really derive little architectural profit in comparison with the expense. That we have some truth on our side, as regards the Renaissance to which our remarks allude, is shown by the subjects we have given, being the most choice we could find. As to the Escurial, so highly praised, size is its greatest merit, and one only leaves it with regret that so much masonry should be piled up on such a scale of grand baldness. The Gothic and Moorish of Spain are quite another affair.—J. B. WARING.

THE METROPOLITAN SANITARY ASSOCIATION have resolved that, during the Parliamentary recess, the association will apply itself in organising an effective movement to obtain, in the next session of Parliament, an Act for the improvement of the present dwellings of the poor, for the repeal of the window tax, an Act to provide an improved supply of pure water to the metropolis, and an amendment of the Nuisances Removal and Contagious Diseases Act. The association appeals to the public for support and aid in the necessary efforts to obtain these objects.

THE EXHIBITION OF THE ROYAL HIBERNIAN ACADEMY has been open since June. Although the pictures are not so numerous as in former years, yet the selection is superior. A large number of valuable specimens have been contributed by English artists. In the ante-room are the works of architecture and sculpture. The collection is small this year. Amongst them are, "Design for an Early English Church," by Alfred Jones; "Perspective View of Great Southern and Western Railway Terminus, Dublin," by Sancton Wood; "Front Elevation of National Gallery," by John J. Lyons; "Plan of principal Story of ditto;" "Entrance Front of Dundalk Chapel," &c., by same; "Design for new Roman Catholic Chapel at Clonmore, county Louth," by John Bourke; "Model of Mausoleum," by H. M'Donnell, &c.

BEVERLEY MINSTER.—The large window of St. Mary's Church, which has for some time been undergoing repairs, has lately been opened; the whole of the stone work having been renewed under the superintendence of Mr. Pugin, and stained glass added by Mr. Hardman. The stone work comprises two tiers of seven compartments each: in the centre of the lower one is a figure of the Virgin Mary, on the left hand of whom are placed St. Matthias with the axe, St. Thomas with the spear, St. James the less with club; and on the right St. John with cup, St. Matthew with builder's rule, and St. Simon with the saw. In the centre of upper tier there is a representation of our Saviour, on the left of whom are put St. Bartholomew with the knife, St. James the great, pilgrim's staff, and St. Peter the Gospel and the keys; and on the right St. Paul with the sword, St. Andrew with the transverse cross, and St. Philip with staff and Latin cross. The window above the transom is divided by the intersecting mullions into eight compartments, four above four, on each side of the centre in which are placed the prophets Amos, Zechariah, Jonas, Micah, Zephania, Haggai, Obadiah, Malachi, Isaiah, Joel, Habbakuk, Jeremiah, Ezekiel, Nahum, Hosea, and Daniel.

A SAILING CHURCH.—The Thames Church Mission Society have a cruising church for sailors. The collier crews could not go to church, and accordingly the church has gone to the colliers. The Thames chaplain is the Rev. W. Holderness. The rev. gentleman has a roving commission, and never before had rover so peaceable a commission.

NATIONAL GALLERY FOR SCOTLAND.—£10,000 have been voted towards the expense of erecting in the city of Edinburgh buildings for a national gallery, and other purposes connected therewith, and the promotion of fine arts in Scotland.

BIRMINGHAM ASSESSMENT.—The parish of Birmingham is about to be surveyed under the Poor Law Assessment Act, and the local *Journal* is very properly calling attention to the necessity of appointing the most fit and proper person to make the assessment that can be obtained. The writer says:—"Auctioneers, land-measurers, highway contractors, frequently call themselves surveyors, but the man who is to assess Birmingham should be a competent surveyor and architect too, in every sense of the term. Nor is this all—he ought to have a thorough knowledge of surveying jurisprudence. He ought to be able to show, not only why he has assessed a particular property at a particular amount, but that he has done so in accordance with acts of Parliament and legal decisions. The Birmingham surveyor must not be permitted to leave behind him a large legacy of legal experiments, and one of the inquiries made of the candidates will most naturally be, whether their assessments have been followed by numerous appeals, or the reverse?" 38,000 assessments are involved.

TENDERS

For the survey and valuation of the parish of Birmingham, with map of same three chains to the inch (time and cost), forty-two tenders lodged, namely:—

	Survey, &c.	Months.	Map.	Months.
	£		£.	
Humbart and Bedford, London ...	1,850	18	1,600	3
J. Barnett, London ...	1,750	15	750	3
C. W. Robertson, Doncaster ...	948	18	1,360	24
Austin and Shout, Bristol, &c. ...	1,400	15	550	6
G. Taylor, Brecon ...	2,375	21	1,935	12
F. Empson, Birmingham ...	2,000	24	200	4
G. Dyke, London ...	850	12	650	6
Denzil and Ibbotson, Gainsborough	2,700	...	.....	...
Newsam and Son, Leeds ...	2,500	18	.....	...
C. Mappleston, London ...	1,850	24	150	6
C. Sanderson, Reading ...	1,140	18	60	1½
Leversege and Corfield, Taunton...	700	12	200	4
R. Dickson, Godalming ...	1,500	18	1,500	18
H. Wrigg, Salford ...	400	12	375	1
J. W. Cole, London ...	1,964	12	145	6
Young and Dobson, London ...	2,650	12	350	6
P. Gannon, London ...	1,450	12	100	6
G. Thompson, jun., Kingswinford	500	12	300	6
Nelson, Collard, and Jury, London	3,875	12	1,837	6
Hutchinson, O'Haggan, and Bell, Preston ...	2,000	12	1,100	12
E. Ryde, London ...	4,500	24	1,000	12
J. Webb, Worcester ...	1,750	24	800	24
R. Cantwell, London ...	10,850	48	.....	...
Hebbert and Faucit, Northallerton	1,020	6	340	4
J. D. Paine, London ...	945	10	1,575	3
G. Haselhurst, Chesterfield ...	4,750	51	.....	...
J. Bowron, London ...	1,900	8	150	2
W. Abbott, St. Neots ...	3,000	24	1,000	12
T. Buckston, Malton ...	3,075	36	.....	...
F. King, Oxford ...	3,475	18	250	6
T. Naden, Birmingham ...	2,500	36	700	12
G. Taylor, Brecon ...	3,325	24	.....	...
C. Henman, London ...	1,700	18	270	4
I. Newey, Birmingham ...	1,445	21	740	6
F. Sandon, Sutton Coldfield ...	2,100	12	1,050	6
R. A. Sharp, York ...	2,400	30	1,000	6
E. S. Gisborne, Nottingham ...	1,987	30	1,875	6
J. W. Hornblower, Birmingham...	1,900	30	200	8
J. Booth, Keighley ...	1,540	24	50	6
Fowler and Sons, Birmingham...	1,733	20	.....	...
R. Homfray, Hales Owen ...	1,800	24	1,300	6
J. Ludlow, Birmingham ...	480	24*		

It was resolved by the guardians that the tenders and testimonials be referred to a committee of the whole board, to examine the same, and where necessary, to obtain the attendance of the parties, and to select six of the most eligible tenders for subsequent approval. A short conversation occurred, on moving the resolution, in which it was stated, according to the local *Journal*, that if any of the persons tendering were required to attend the board, their expenses would be paid.

For finishing carcasses of two villas, Fir Grove, Weybridge, for Sir John Easthope, Bart. Mr. Ambrose Poynter, architect:—

Higgs, London ...	£1,600
Oades and Son, Egham ...	1,580

For a new House and Offices for Mr. C. W. Wixer, Finchley. Mr. E. Woodthorpe, Architect.

Outhwaite...	£2,395
Myers ...	2,311
Plowman...	2,298
Locke and Nesham ...	2,055
Watson ...	2,049
Trego ...	1,936

For a School of Refuge, Dalston. Mr. W. Tress, Architect.

Carter ...	£2,177
Trego ...	2,164
Haynes and Co.	2,113

St. George's Hospital. Mr. A. Mee, architect.

Piper ...	£2,647
Grimsdell ...	2,593
Mansfield ...	2,555
Cubitt and Co. ...	2,490
Trego ...	2,406
Holland ...	2,353
Jackson ...	2,343
Locke and Nesham ...	2,289

* Survey and map only.

TO CORRESPONDENTS.

"Fleas."—("A. J. B." says, tobacco leaves put into beds will keep them out.)

Received.—"R. N. Y.," "R. N. I.," "M. P.," "Baron," "F. F.," "R. T.," "E. S.," "J. G. H.," "H. G.," "Fair Play," "J. T." "G. W.," "G. W., jun.," "J. R.," "I. B.," "J. B. and Son," "A. A.," "Common Sense," "J. B.," "Quondam," "The Entry into Jerusalem," (Art-Union of London), "Shakspeare's Seven Ages," by D. Maclise, R.A. (Art-Union of London), "Report of Art-Union Council for 1850" (Art-Union: No. 444, West Strand, London), "The School Builders' Guide and School Furniture Pattern-book," by Rev. C. Richson, M.A. (Darton and Co., Holborn-hill); "Improvement and Drainage of Metropolis: New Street, with Aqueduct Sewer," &c., by N. Beardmore, C.E. (Weale, High Holborn); "Plan and Elevation of proposed detached Residence for each Interpreter at International Exhibition," by J. Galpin (Chabot, Skinner-street, Snow-hill); "On the Strength of Materials, specially applied to Tubular Bridges, Iron Beams, &c.," by T. Tate (Longman Brown, Green, and Co., Paternoster-row); "The Britannia and Conway Tubular Bridges: and on Beams and Materials," by E. Clark, with sanction and supervision of R. Stephenson; and folio volume of plates (Day and Son, Gate-street, Lincoln's-inn-fields; and Weale, High Holborn).

Some of our correspondents must excuse us till next week.

"Books and Addresses."—We have not time to point out books or find addresses.

ADVERTISEMENTS.

TO ARCHITECTS & WRITERS ON ARCHITECTURE.

THE Proprietors of "THE BUILDER," being about to remove from their present Office, and having taken premises well situated and adapted for conducting a Publishing Business, beg to state that they will be happy to undertake the publication of any Works connected with Architecture or the Fine Arts. From the fact of their being extensive Printers as well as Publishers, they flatter themselves they can offer unusual facilities to Authors for the publication of works of the above description.

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SUPPLY OF WATER.—Review of the REPORT by the GENERAL BOARD of HEALTH on the Supply of Water to the Metropolis, contained in a Report to the Directors of the London (Watford) Spring Water Company.
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Best Patent Cut Clasp.

1½	1¾	2	2½	3 inch and larger,
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THE PARIAN CEMENT, for INTERNAL STUCCO, which you supplied at Messrs. J. & R. MORLEY'S warehouses and dwelling in Wood-street, Gresham-street, in the City, has been used throughout the premises, in every story; altogether about ten thousand yards superficial, chiefly upon recently built walls, and a small portion upon timber partitions, and that with the most perfect and satisfactory result. I feel it also necessary to observe, that the plasterers' work was almost invariably followed up on the next day by the painters, thereby enabling me to have the buildings complete in the shortest possible time, both for business and for the occupation of the establishment. I am, therefore, of opinion, that the use of this new material is a most valuable feature in building operations, and fully justifies that which I was given to understand, viz., that it was an extraordinary material. I think it right to mention that I am at the present time having a great extent of similar work executed at another range of buildings, where time and the quality of the work are of the utmost importance.

(Signed) JNO. WALLEN, Architect, London.

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MARTIN'S PATENT

FIRE-PROOF AND ORNAMENTAL CEMENT,

APPLICABLE FOR

ALL INTERNAL PURPOSES WHERE PLASTERING IS REQUIRED.

This invaluable Cement has now been before the public so many years, and obtained so high a standing in the estimation of all who have used it, that it is unnecessary to comment on its merits. Messrs. STEVENS and SON however feel called upon to observe, that from the greater extent of surface which a given quantity of MARTIN'S will cover, as compared with other Cements for internal use, there will be found a gain of 16½ per cent. in material, full 7 per cent. less in price, with an additional saving in labour of 10 per cent., by its allowing about forty minutes for working, being less than one-tenth of the time of other cements of a similar nature, therefore worked with greater facility, making together the enormous saving of full THIRTY-THREE PER CENT.; its advantages therefore cannot admit of doubt. Specimens, showing its beauty, hardness, and applicability to all plain and ornamental purposes, may be seen; and the Cement, in any quantity, obtained of Messrs. STEVENS and SON, at their Plaster and Cement Works, 186, Drury-lane, London.—Manufactory, Derwent Mill, Derby.

N.B. This Cement will receive paint or paper in a few hours after the completion of the work by the plasterers.

JOHNS and Co.'s PATENT PERMANENT STUCCO WASH, CEMENT, and PAINT.—The attention of the trade and the public generally is solicited to these very excellent and well-known materials, which, for their beauty, durability, imperviousness, and cheapness, are unequalled. THE PERMANENT WASH, as a substitute for common lime-wash or water-colour, is an article which has long been wanting for stucco and brick-work; it is of a stone colour, but may be tinted to any other; is perfectly dry in twenty-four hours; will not wash off; is very little dearer than the common washes; and, being a non-absorbent, is admirably adapted for railway stations, union workhouses, schools, barracks, prisons, &c. One cwt. is sufficient to cover, with two coats, 250 square yards. THE CEMENT, from the great reduction in price, and its suitableness for internal as well as external surfaces, places it above all other materials of its kind; it has no caustic qualities; may be painted or papered in a few days; never blisters, cracks, or vegetates; soon becomes as hard as stone; and may be cleaned with a brush and water. The merits of the PAINT are well known for its application to stucco work of all kinds, and external work generally. Numerous testimonials, prospectuses, and every information may be obtained, on application to the Sole Agent, PHILIP HARE, at the Warehouse, 22, Steel-yard, Upper Thames-street. A liberal allowance to wholesale dealers.

TO BUILDERS, CONTRACTORS, AND OTHERS.

GREAVES'S BLUE LIAS LIME and CEMENT, direct from the works, Stockton.—RUTTY and VEREY beg to inform the Trade that they continue to supply Blue Lias Lime and Cement as usual at No. 2, Wharf, Paddington, only. Also Glaze Drain Pipes.—N.B. No other lime kept at the wharf.

BLUE LIAS LIME, PLASTER, &c.

THOMAS FREEN and CO. having connected with their ROMAN CEMENT WORKS an extensive Manufactory of GROUND BLUE LIAS LIME and PLASTER of PARIS, beg to call the attention of Builders and others to the very superior quality of these articles, which they are prepared to supply upon the most reasonable terms.

WORKS—Tuscany Wharf, Regent's Canal, Kingsland-road, London.

DEPOTS—Lee's Wharf, Paddington; and Phœnix Wharf, Greenwich.

N.B. Grey and Chalk Lime, Paving Bricks, Tiles, Artificial Stone, Plasterers' Hair, &c. &c.

GREY-STONE LIME.—HALL, Brothers, Merstham Lime Works, near Reigate, beg to offer to Builders and others a list of their prices for Cash on delivery.

Grey-Stone Lime	6s. 0d.	per Yard, or 22 Bushels.	
Ditto, for Manure	4s. 0d.	ditto	ditto
Ditto, Ashes	1s. 6d.	ditto	ditto
Black ditto	3s. 0d.	ditto	ditto

In not less than Six Yard quantities, and put on the Railway for all goods stations on the London and Brighton, and South-Eastern Railways, or lines connected with them. A fresh supply hot from the kilns daily, at the Bricklayers' Arms and Croydon Stations, and delivered to all parts.

Prices for Cash on delivery:—7s. per yard at the stations or works; 8s. per yard delivered within five miles; in not less than 8-yard quantities. Booking, 2s. per yard; 1s. per yard off if paid monthly. Collecting charged for. The Quality is warranted to be the Best.—Address, Merstham, near Reigate, Croydon; or Youl's-place, Old Kent-road.

BELL'S PATENT LIQUID CEMENT is ready for use, and only one-eighth the cost of oil-paint. For beauty it is pre-eminent, giving the exact appearance of FINE CUT STONE. Can be used at once on fresh Roman Cement, or any other plastering, and will protect the walls as well as Roman Cement. In casks of 1, 2, and 3 cwt., at 8s. 15s. and 28s., casks inclusive.

PATENT MINERAL PAINTS,

Invaluable for cheapness, beauty, and permanence: not half the cost of other paints, always ready for use, will keep good for years, and therefore well suited for exportation. Brilliant black, 2s.; rich browns, 2s. 9d.; greens and light colours, 4s. per gallon.

G. BELL and Co., 2, Wellington-street, Goswell-street.

CHEAP GLASS.—Good Sheet cut to any size, 3d. per foot; Superior, for prints, 3d.; Ornamental, 9d., at HICKSON'S, 46, Long Acre (cash).

PATENT PLATE GLASS.—HETLEY and CO. beg to inform Architects, Builders, and the Trade generally, that their new Tariff of PRICES for the above is now ready, and will be forwarded on application. A REDUCTION of about 40 per cent. has been made on the usual Glazing sizes.—Sheet, Crown, and Ornamental Window-Glass Warehouse, 35, Soho-square, London.—ROUGH PLATE GLASS.

CHEAP ORNAMENTAL GLASS.—I beg to inform my friends and the public, that I have now completed a new ENGINE, and, owing to the facility with which I can execute orders, I am enabled to reduce my former prices considerably. The prices are now from ONE SHILLING PER FOOT SUP., and borders from SIXPENCE PER FOOT RUN. A large quantity of the cheapest patterns always in stock. Embossing and painted work on the most moderate terms.—CHARLES LONG, No. 1, King-street, Baker-street, Portman-square.—Cash only.

E. and W. H. JACKSON beg to call the attention of Builders and the trade to the low prices of their PATENT PLATE GLASS. BRITISH PLATE, silvered and for glazing, of unrivalled quality and finish. ROUGH PLATE, CROWN, SHEET, COLOURED, and ORNAMENTAL GLASS, in every variety, of the best manufacture, and at the lowest terms. List of prices, estimates, and every information sent on application. THE ROYAL ARMS, richly painted on glass,—size, 86 inches by 58,—well adapted for a public Company's Hall; to be seen at their warehouse, 315, Oxford-street.

SOHO PLATE, CROWN, SHEET, PATENT PLATE, and ORNAMENTAL GLASS WAREHOUSE, 26, Soho-square, and George-yard, Crown-street, Soho.—ALFRED GOSLETT begs to inform architects, builders, &c., that he is now supplying Belgian Sheet Glass, of large size and very good quality, at 42s. the case of 200 feet (case included), ornamental glass of very superior designs cut to order from 9d. per foot; and that he is prepared to contract for the supply of all descriptions of crown, sheet, patent plate, coloured and ornamental glass, either in crates, as manufactured, or cut to given size.

THOMAS MILLINGTON begs to inform BUILDERS and the Trade that he can supply them with FOREIGN and ENGLISH WINDOW GLASS, Plain and Coloured, of every description. ROUGH PLATE-GLASS from ¼ inch to 1 inch thick. Glass Pantiles, Slates, &c. &c. White Lead, Paints, Colours, Oils, Varnishes, Brushes, &c.; Milled and Sheet Lead; Lead Pipe from ¼ inch to 4½ inches bore; Solder, Water-closets, Basins, Plumber's and Brass Work of every description, and upon the very best terms. Glass Ornament Shades, Milk-pans, Propagating and Bee Glasses.—Address, 87, Bishopsgate-street Without.

See Priced List Advertisement, Saturday, June 15.

CRYSTAL PLATE LOOKING-GLASSES. *The CRYSTAL PLATE GLASS is a new manufacture of* peculiar brilliancy and substance, and when silvered (being perfectly colourless), produces a most startling effect. Until this article was introduced, a pure colourless reflection had never been obtained. On receipt of eight stamps specimens will be forwarded; printed sheets of designs and estimates free. For shop fronts, where a clear sight is important, this glass proves invaluable. WM. FOLLIT, SOLE AGENT, 63, Fleet-street, corner of Bouverie-street, London, Manufacturer of Picture Frames, Window Cornices, and every description of superior Carving and Gilding, at a reduced scale of prices. From the extent of his business, and the strict economy in the conduct thereof, W. F. is enabled to offer many advantages, unattainable at other establishments. Important to Artists, Upholsterers, Builders, Shippers, and the trade.

SUPERIOR TRACING PAPER.—All qualities, from the thickest to the thinnest, are manufactured with the utmost care, by W. HOWARD, 23, Great Russell-street, Bloomsbury. Sample books, containing thirteen different sorts, sent, post-free, to any part of the kingdom.

W. S. KENNEDY'S CHINA MORTISE • FURNITURE (with Patent Spindles), Finger Plates, Bell Lever-pull Furniture, Porcelain Letters, Garden Labels, &c., may be had of most of the respectable ironmongers throughout the kingdom; or wholesale only at JAMES ARTHUR MILES'S Wholesale Warehouse for Brass Foundery and Gas Furniture, 13, Panoras-lane, Queen-street, Cheapside.

TO ARCHITECTS, BUILDERS, AND BRICK-MAKERS.

PUMPS of Superior CONSTRUCTION, bored perfectly true by improved machinery, in various plain and ornamental patterns for Conservatories, Squares, Market Places, Roads, Gardens, and for Liquid Manure. BRICK-MAKERS' PUMPS, in Wrought and Cast Iron, HYDRAULIC LIFT PUMPS, and ENGINES for Wells of any depth. SINGLE and DOUBLE PUMPS up to twelve-inch bore, kept for Hire.

BENJ. FOWLER (late of 63, Dorset-street), removed to the new Factory, Whitefriars-street, Fleet-street.

TO BUILDERS AND PLUMBERS

THE attention of the Trade is called to

JOHN WARNER & SONS' PATENT VIBRATING STANDARD PUMP,

which is recommended for the simplicity of its construction, and the ease with which it works.

By the introduction of the vibrating standard the cumbrous carriage and expensive slings and guides are unnecessary, rendering the price considerably less than pumps made on the old plan.

Beer and Water Engines for raising fluids from a depth not exceeding 28 feet; also, Garden Engines constructed on the same principle.

JOHN WARNER & SONS, 8, Crescent, Jewin-street, London, Manufacturers and Patentees.

FLEXIBLE INDIA-RUBBER PIPES AND TUBING, for Railway Companies, Brewers, Distillers, Fire Engines, Gas Companies, Gardening and Agricultural purposes, &c.—J. L. HANCOCK'S patent VULCANIZED INDIA-RUBBER HOSE-PIPES are made to stand hot liquor, and acids without injury—do not become hard or stiff in any temperature (but are always perfectly flexible) and as they require no application of oil or dressing, are particularly well adapted for Fire Engines, Pumps, Gas, Beer Engines, Gardens, Liquid Manure, and all purposes where a perfectly flexible pipe is required. Made all sizes, from ¼ inch bore upwards, and of any length to order. Vulcanized India rubber garden hose fitted with brass-taps, copper branch and roses complete, ready to be attached to pumps, water-butts, or cisterns. Sole manufacturer, JAMES LYNE HANCOCK, Goswell-mews, Goswell-road, London.

N.B. Vulcanized India-rubber washers of all sizes for joints or hot-water and steam pipes, and vulcanized sheet rubber any thickness for all kinds of joints, and other purposes.

BRITISH MUTUAL LIFE OFFICE.— The Public are invited to examine for themselves the advantages gained for Assurers by the plan on which policies are granted by this Office.—Apply to CHARLES JAMES THICKE, Secretary, 17, New Bridge-street, Blackfriars.

CLERICAL, MEDICAL, and GENERAL LIFE ASSURANCE SOCIETY. Established 1824.

NOTICE IS HEREBY GIVEN, that the usual DIVIDEND of Five per Cent. (less income-tax) on the paid-up capital on the shares of the Society, will be payable at this office on and after TUESDAY, the 20th day of August inst.

An Act of Parliament, just obtained, enables this Society to GIVE IMPORTANT BENEFITS TO PERSONS NOW ASSURING, the particulars of which are set forth in a report, which can be obtained of any of the Society's Agents, or by applying to GEO. H. PINCKARD, Resident Secretary.

99, Great Russell-street, Bloomsbury, London.

FAMILY ENDOWMENT LIFE ASSURANCE AND ANNUITY SOCIETY.

12, Chatham-place, Blackfriars, London, and at Calcutta.

CAPITAL 500,000*l.*

DIRECTORS.

William Butterworth Bayley, Esq., Chairman.
John Fuller, Esq., Deputy-Chairman.

Lewis Burroughs, Esq.	Edward Lee, Esq.
Robert Bruce Chichester, Esq.	Colonel Ouseley.
Major Henderson.	Major Turner.
C. H. Latouche, Esq.	Joshua Walker, Esq.

Thirty per cent. Bonus was added to the Society's Policies on the profit scale in 1845. The next valuation will be in January, 1853.

Loans are granted on mortgage and on security of Life Interests and Reversions. JOHN CAZENOVE, Secretary.

PROVIDENT LIFE OFFICE, 50, Regent-street; City Branch: 2, Royal Exchange-buildings.—Established 1806. Policy-holders' Capital, 1,180,722*l.* Annual Income, 148,000*l.* Bonuses declared, 743,000*l.* Claims paid since the establishment of the Office, 1,886,000*l.*

PRESIDENT.—The Right Honourable EARL GREY.

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The Hon. Arthur Kinnaird.	Capt. William John Williams.

J. A. Beaumont, Esq., Managing Director.

PHYSICIAN.—John Maclean, M.D., F.S.S., 29, Upper Montague-street, Montague-square.

Nineteen Twentieths of the Profits are divided among the Insured.

EXAMPLES OF THE EXTINCTION OF PREMIUMS BY THE SURRENDER OF BONUSES.

Date of Policy.	Sum Insured.	Original Premium.	Bonuses added subsequently, to be further increased annually.
	£.	£. s. d.	£. s. d.
1806	2,500	79 10 10 extinguished.	1,222 2 0
1811	1,000	33 19 2 ditto	231 17 8
1818	1,000	34 16 10 ditto	114 18 10

EXAMPLES OF BONUSES ADDED TO OTHER POLICIES.

Policy No.	Date.	Sum Insured.	Bonuses added.	Total with additions to be further increased.
		£	£ s. d.	£ s. d.
521	1807	900	982 12 1	1,882 12 1
1174	1810	1,200	1,160 5 6	2,360 5 6
3392	1820	5,000	3,558 17 8	8,558 17 8

Prospectuses and full particulars may be obtained upon application to the Agents of the Office in all the principal towns of the United Kingdom; at the City Branch; and at the head Office, No. 50, Regent-street.

SOCIETY OF ARTS.—SPECIAL PRIZE- LIST FOR 1850 and '51.

The intimate connexion of the Society of Arts with the Exhibition of the Works of Industry of All Nations in 1851, which is a subject of congratulation to the members of the Society, as the successful enlargement of an idea the Society has long aimed to realise, has appeared to the Council to render altogether superfluous any attempt on the part of the Society to pursue its ordinary course for the encouragement of arts, manufactures, and commerce by the offer of its usual prizes for the session of 1850 and 1851.

The Council have therefore considered how they might most usefully apply that portion of the revenue of the Society to the particular circumstances of the year.

The Council are of opinion that the most useful work they can undertake, and one they believe to be strictly auxiliary to the views of their royal President, H.R.H. the Prince Albert, and of her Majesty's Commissioners for the Exhibition, will be to encourage the production of philosophical treatises on the various departments of the Exhibition, which shall set forth the peculiar advantages to be derived from each to the arts, manufactures, and commerce of the country.

The Council accordingly offer, in the name of the Society, the large medal and twenty-five pounds for the best, and the Society's small medal and ten pounds for the second-best treatise on the objects exhibited in the section of raw materials and produce.

A large medal and twenty-five pounds for the best, and a small medal and ten pounds for the second-best treatise on the objects exhibited in the section of Machinery.

A large medal and twenty-five pounds for the best, and a small medal and ten pounds for the second-best treatise on the objects exhibited in the section of Manufactures.

A large medal and twenty-five pounds for the best, and a small medal and ten pounds for the second-best treatise on the objects exhibited in the section of Fine Arts.

Each treatise must occupy, and not exceed, eighty pages of the size of the Bridgewater Treatises.

The Society will also award its large medal and twenty-five guineas for the best general treatise upon the Exhibition treated commercially, politically, and statistically; and small medals for the best treatises on any special object or class of objects exhibited.

The treatises for which rewards are given are to be the property of the society; and if deemed suitable for publication, should the Council see fit, they will cause the same to be printed and published, and will award to the author the net amount of any profits which may arise from the publication after the payment of the expenses.

The treatises to be delivered at the Society's House on or before the 30th of June, 1851.

In announcing this list, there is no intention on the part of the Council to confine the rewards of the Society to the subjects named there, though, for the reasons given, they do not anticipate that communications of interest on other subjects will be submitted. (By order) GEORGE GROVE, Secretary.

18, John-street, Adelphi, August 8, 1850.

GERMAN SPRING MATTRESSES, permanently elastic, very durable and cheap.

3 feet wide	2*l.* 8s.	4 feet 6 wide	3*l.* 3s.
3 feet 6 „	2*l.* 13s.	5 feet „	3*l.* 10s.
4 feet „	2*l.* 18s.	5 feet 6 „	3*l.* 18s.

THE BEST, TOP STUFFING ALL HORSEHAIR.

3 feet wide	3*l.* 10s.	4 feet 6 wide	5*l.* 0s.
3 feet 6 „	4*l.* 0s.	5 feet „	5*l.* 10s.
4 feet „	4*l.* 10s.	5 feet 6 „	6*l.* 0s.

One of these Mattresses, with a French Mattress on it, is a most excellent and soft bed. HEAL and SONS' List of Bedding, with full particulars of weights, sizes, and prices of every description of bedding, sent free by post.—HEAL and SON, Bedding Manufacturers, 196, opposite the Chapel, Tottenham-court-road.